United States Environmental Protection Agency

Response to Department of Commerce Questions on Permit Streamlining and Reducing Regulatory Burdens for Domestic Manufacturing

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Contents

Introduction 3

Executive Summary 4

I. Summary of Pertinent EPA Statutes and Regulatory/Permitting Programs Potentially Affecting Domestic Manufacturing 5

Table 1. 5

I.A Clean Air Act 9

I.B. Clean Water Act 11

I.C. Safe Drinking Water Act 12

I.D. Resource Conservation and Recovery Act 13

I.E. Toxic Substances Control Act 14

I.F. Federal Insecticide, Fungicide, and Rodenticide Act 15

II. Opportunities to Simplify EPA's Regulatory Programs and Associated Permitting Processes 16

II. A. Continuous Improvement Efforts to Streamline Permitting Processes and Minimize Regulatory Burden 17

Table 2 17

II.A.1. AIR – Clean Air Act (NSR, NAAQS, PSD) 19

II.A.2. WATER – SDWA, CWA (SEC 402, SEC 404), NPDES 21

II.A.3 LAND – RCRA Subtitle C, TSCA 21

II. B. Potential Improvement Efforts to Streamline Permitting Processes and Minimize Regulatory Burden for Domestic Manufacturers 22

II.B.1. AIR – Clean Air Act (Title V, NSR) 22

II.B.2. WATER – SDWA, Clean Water Act (SEC 402 [NPDES], SEC 404), ... 23

II.C. EPA Actions Regarding Specific Regulatory Reform Targets 24

Appendices

Introduction

On January 24, 2017, President Trump signed the Presidential Memorandum on Streamlining Permitting and Reducing Regulatory Burdens for Domestic Manufacturing. The stated purpose of the memorandum was to "support the expansion of manufacturing in the United States through expedited reviews of and approvals for proposals to construct or expand manufacturing facilities and through reductions in regulatory burdens affecting domestic manufacturing." The Environmental Protection Agency (EPA), which is tasked with the mission of protecting human health and the environment, is equally committed to engaging in robust regulatory reforms to reduce unnecessary burdens on domestic manufacturing consistent with the President's directive.

There are over 250,000 manufacturers in the US with more than 11.4 million employees, making manufacturing the fourth largest industry providing domestic jobs.[1] Nearly six in 10 U.S. export dollars come from manufacturing.[2] Despite manufacturer's positive economic impact, environmental regulations have resulted in manufacturers spending nearly twice the amount on regulatory compliance than is spent by the average U.S. business.[3] For small manufacturers, the amount spent on regulatory compliance is about triple that of the average U.S. business.[4] According to the National Association of Manufacturers, federal environmental regulations impose nearly 75,000 air, water, and waste-related restrictions on U.S. manufacturers.[5] Mining projects typically lose one-third of their value due to permit approval delays.[6] The World Bank ranks the US 39th in the world with regard to the ease for businesses in dealing with construction permits.[7] Accordingly, review of EPA's permitting processes is timely.

EPA implements a host of environmental statutes that affect domestic manufacturing. Certain permitting requirements impose direct costs (e.g. time and resources to prepare the permit application), costs associated with uncertainty and delay (e.g. financial costs and potential penalties), and opportunity costs of delay and cancellation (e.g. forgone production and emissions reductions).[8] Delays in the approval of permits by federal or State permitting authorities can also postpone or prevent manufacturers from building, expanding or beginning operations, even if the affected operations may be deemed suitable as proposed. The costs associated with environmental permitting are not well documented, yet the "hidden cost of environmental regulation" are acute for manufacturers, including the facilities that are never built, projects foregone, and jobs that are not created. Given the extraordinary potential of the U.S. manufacturing sector to contribute to the growth of the national economy and assist in the restoration of the nation's infrastructure, EPA is committed to comprehensive regulatory reform and streamlining of its permitting and other processes.

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[1] https://www.census.gov/library/visualizations/2016/comm/manufacturing_day2016.html; http://www.nam.org/Newsroom/Top-20-Facts-About-Manufacturing/

[2] https://www.census.gov/library/visualizations/2016/comm/manufacturing_day2016.html

[3] Paul Noe. *Smarter Regulation for the American Manufacturing Economy*. 2016. https://spea.indiana.edu/doc/mpp/noe-reg.pdf

[4] Paul Noe. *Smarter Regulation for the American Manufacturing Economy*. 2016. https://spea.indiana.edu/doc/mpp/noe-reg.pdf

[5] Pareto Policy Solutions, LLC. Report to the National Association of Manufacturers. *Holding US Back: Regulation of the U.S. Manufacturing Sector*. 2017. http://www.nam.org/Data-and-Reports/Reports/NAM-Belton-Regulatory-Study/

[6] http://mineralsmakelife.org/assets/images/content/resources/SNL_Permitting_Delay_Report-Online.pdf

[7] http://www.doingbusiness.org/rankings

[8] Arthur Fraas et. al., EPA's New Source Review Program: Time for reform? (47 ELR 10026, 10030)

Executive Summary

Pursuant to the Presidential Memorandum, the Department of Commerce (DOC) asked participating departments and agencies to provide a report on its statutory, regulatory and permitting requirements that may affect domestic manufacturing; to describe any ongoing or potential efforts to improve these processes; and to identify any specific regulatory reform targets that may reduce burdens on manufacturers. This paper serves as the Environmental Protection Agency (EPA) response to DOC's request. The paper is organized as follows:

- Section I provides a high-level summary of relevant EPA statutes, regulatory requirements and permitting programs, including estimates of the regulated universe by statute and by program, and a summary of delegated and authorized states by regulatory or permitting program.
- Section II summarizes the EPA's to streamline its permitting processes and identifies several opportunities in which EPA's various regulatory programs and associated permitting processes might be further simplified.
- Appendix A includes background documents summarizing EPA's past efforts to quantify time taken for permit issuance.
- Appendix B includes process maps addressing relevant EPA statutes, associated regulatory programs and permitting processes.

Through the potential streamlining efforts described herein, EPA believes the Agency can create greater environmental results in the long-term and achieve the following goals:

- Speed manufacturers' "time-to-market" for new and improved products/facilities;
- Reduce the burden on manufacturer resources responding to the permitting process;
- Reduce the frequency and severity of unintended permit violations; and
- Increase clarity surrounding permitting requirements.

EPA is taking regulatory reform very seriously, and under Administrator Pruitt's leadership, it has been proactive in soliciting input from a broad range of stakeholders that will inform plans over the next few months by the Agency's Regulatory Reform Task Force in response to several Executive Orders. The regulatory programs that affect domestic manufacturers also affect other industrial sectors, and the Task Force is looking to synthesize information from multiple sources, including the DOC's Request for Information (RFI), comments in EPA's regulatory reform docket, input from public meetings, and recommendations from EPA programmatic offices to inform its regulatory reform work over the next few months. EPA believes through these efforts, the Agency can maintain environmental protections and meaningfully improve its permitting and regulatory programs to reduce burdens on domestic manufacturers, consistent with the President's directives.

I. Summary of Pertinent EPA Statutes and Regulatory/Permitting Programs Potentially Affecting Domestic Manufacturing

EPA implements several major environmental statutes through regulatory or permitting programs that may affect domestic manufacturers. In some cases, the permitting program is mandated directly by statute, and in other cases, the permitting program is the result of regulations promulgated by EPA in response to a statute. A summary of these statutes and programs are summarized in **Table 1.**

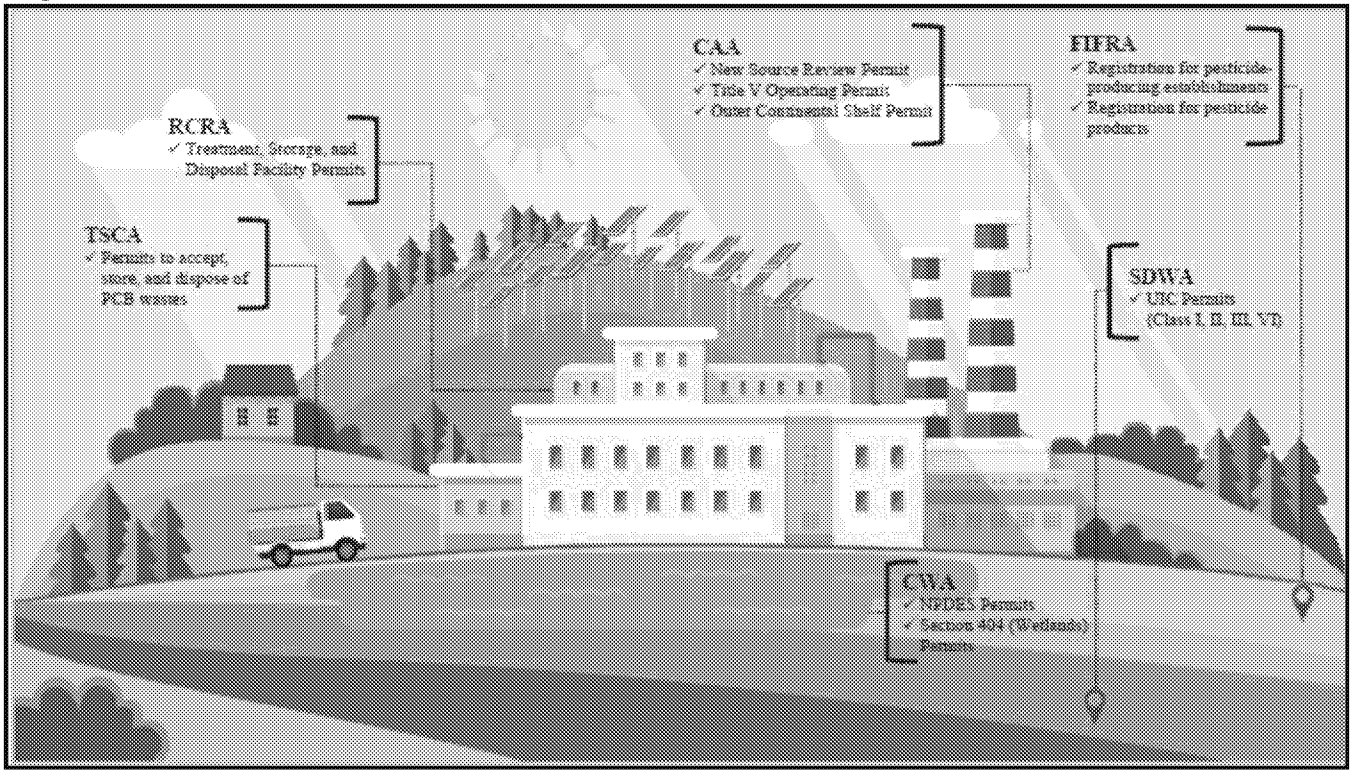
Table 1.

Summary of Pertinent EPA Statutes, Regulatory Requirements, and Permitting Programs
AIR
Clean Air Act
New Source Review (NSR), National Ambient Air Quality Standards (NAAQS) In areas that attain NAAQS, NSR permits are referred to as Prevention of Significant Deterioration or "PSD" permits. In NAAQS nonattainment areas, they are referred to as Nonattainment NSR or "NNSR" permits.
✓ PSD Pre-construction for new major sources, major modifications of existing sources of criteria pollutants.
✓ Minor NSR construction permits.
✓ Major Construction Nonattainment NSR Permit for new major sources or major modifications to major sources in a nonattainment area.
Title V Operating Permits / Petitions
✓ *Title V (Part 70) sets forth operating permits issued by state/local/tribal air permitting authorities; Title V (Part 71) sets for the federal air quality operating permit program where EPA issues permits to a limited number of sources [e.g. Indian Country; outer continental shelf (beyond the State's seaward boundaries); EPA's objection to a state issued Part 70 operating permit and the state does not fully respond to EPA's objections; and, a state's Part 70 operating permit program that is expired or withdrawn].*
WATER
Safe Drinking Water Act
SDWA Underground Injection Control (UIC) Program. Injection of all materials underground must be authorized either under general rules or specific permits. There are six well classes with varied regulatory or permitting requirements. Note: In 1984 banned the use of Class IV injection wells (hazardous or radioactive waste).
✓ Permits for Class I industrial and municipal waste injection, including deep well injection of hazardous fluids below the lowermost underground source of drinking water (USDW).
✓ Permits for Class II Enhanced Oil Recovery wells.
✓ Permits for Class III uranium in-situ recovery (ISR) wells.
✓ Registration of Class V wells injecting non-hazardous fluids into/above USDW.

Summary of Pertinent EPA Statutes, Regulatory Requirements, and Permitting Programs
✓ Permits for Class VI Geologic Sequestration of Carbon Dioxide (CO2).
Clean Water Act (CWA)
CWA Section 402, National Pollutant Discharge Elimination System (N). Discharge of wastewater or storm water from a point source (e.g. pipe, ditch, channel) into a surface water of the U.S. (e.g. lake, river and/or ocean).
✓ "Major" NPDES permits for existing sources with major modifications, including, but not limited to, a new outfall, a new or changed process resulting in the discharge of new pollutants, or an increase in production resulting in an increased discharge of pollutants.
✓ "Non-Major" industrial NPDES permits that are identified by EPA on a national or regional basis as a focus area, for new sources or new dischargers.
✓ Pretreatment Permits to dispose of pretreated wastewaters and sanitary sewage in Publicly Owned Treatment Works (POTWs).
✓ Individual permits for facilities discharging pollutants of concern at a level of significance to impaired water bodies that have 60+ points on the major/minor NPDES permit rating worksheet.
CWA Section 404, NPDES. Dredge and Fill Wetlands Permits, wherein the U.S. Army Corps of Engineers has authority to issue permits, but the EPA develops the environmental criteria for permit application; determines the geographic jurisdiction and applicability of exemptions under the program; and comments on draft permits.
✓ New construction of manufacturing plants or plant expansions (including parking lots or rainwater collection lakes, water bodies) that will affect "waters of the United States" (WOTUS).
LAND
Resource Conservation and Recovery Act (RCRA)
RCRA, Subtitle C – Hazardous Waste Discharges. Owners/operators of facilities that treat, store or dispose of hazardous materials must have a permit to govern their operations.
✓ New permits for operation, closure, post-closure activities.
✓ Modifications to existing permits that address new treatment processes.
✓ Corrective action cleanups involving possible off-site impacts.
RCRA, Subtitle D – Criteria for Municipal Solid Waste Landfills. Minimum criteria established for owners/operators of municipal solid waste landfill (MSWLF) units.
✓ New permits for location, design, construction, operation, closure and/or post-closure of MSWLFs.
✓ Modifications to existing permits.
Toxic Substances Control Act (TSCA)
TSCA Polychlorinated-biphenyls (PCB).
✓ PCB waste disposal activities in commercial landfills where there will be potential releases of PCBs and/or dioxins to the air, water and ground exceeding the regulatory levels from its operations
✓ Approvals for PCB commercial storage.
✓ Disposal facility and risk-based cleanup approvals for permits that may involve activities with significant public health or environmental impacts.
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
✓ All pesticides distributed or sold in the US must be registered by EPA.

These regulatory and permitting programs span all types of entities across all types of media and boundaries. Manufacturers that engage in industrial or commercial activities impacting a combination of air, land, and water may need to obtain a variety of permits to satisfy multiple environmental statutes across a variety of regulatory regimes and geographic areas.[9] As illustrated in **Figure 1**, a single facility or "unit" may be subject to different EPA permitting programs. For example, some EPA programs require an **individual permit** for a single facility while other EPA permitting regimes require a separate permit for each potential pollution source or operating unit along the manufacturing chain. Under either scenario, a single manufacturer may, depending on its activities, be required to apply for and maintain multiple environmental permits to satisfy several statutory and regulatory regimes.

Figure 1.

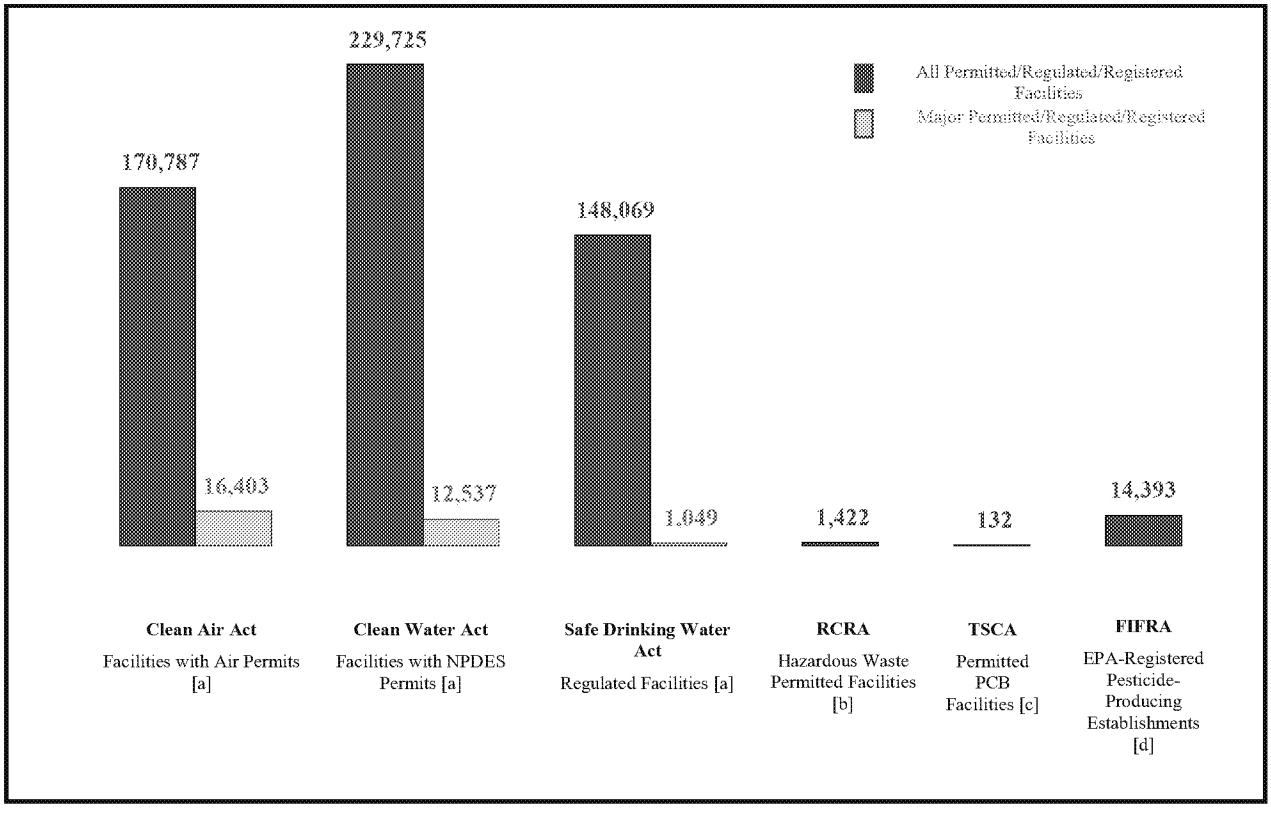


In addition to unit-specific permits, EPA may issue a "**general permit**" that governs a common geographic area or certain categories. For example, EPA issues over 80,000 general permits a year for construction. EPA has also issued a total 500,000 general permits for vessels, pesticide applications, and different types of stormwater. Accordingly, a general permit can cover a multitude of pollution sources and/or companies. In order for a company's activities to be covered under a general permit, it is required to file a "Notice of Intent" rather than apply for an individual permit. **Figure 2** provides an overview of the number of regulated and permitted facilities by statute based on EPA's Enforcement and Compliance History Online (ECHO), a web application that tracks facility-level compliance with multiple federal statutes and EPA regulatory requirements.[10]

[9]To address the potentially burdensome nature of obtaining myriad permits, the EPA has issued exemptions for classes of companies operating in various industry sectors.

[10] Available online at https://echo.epa.gov.

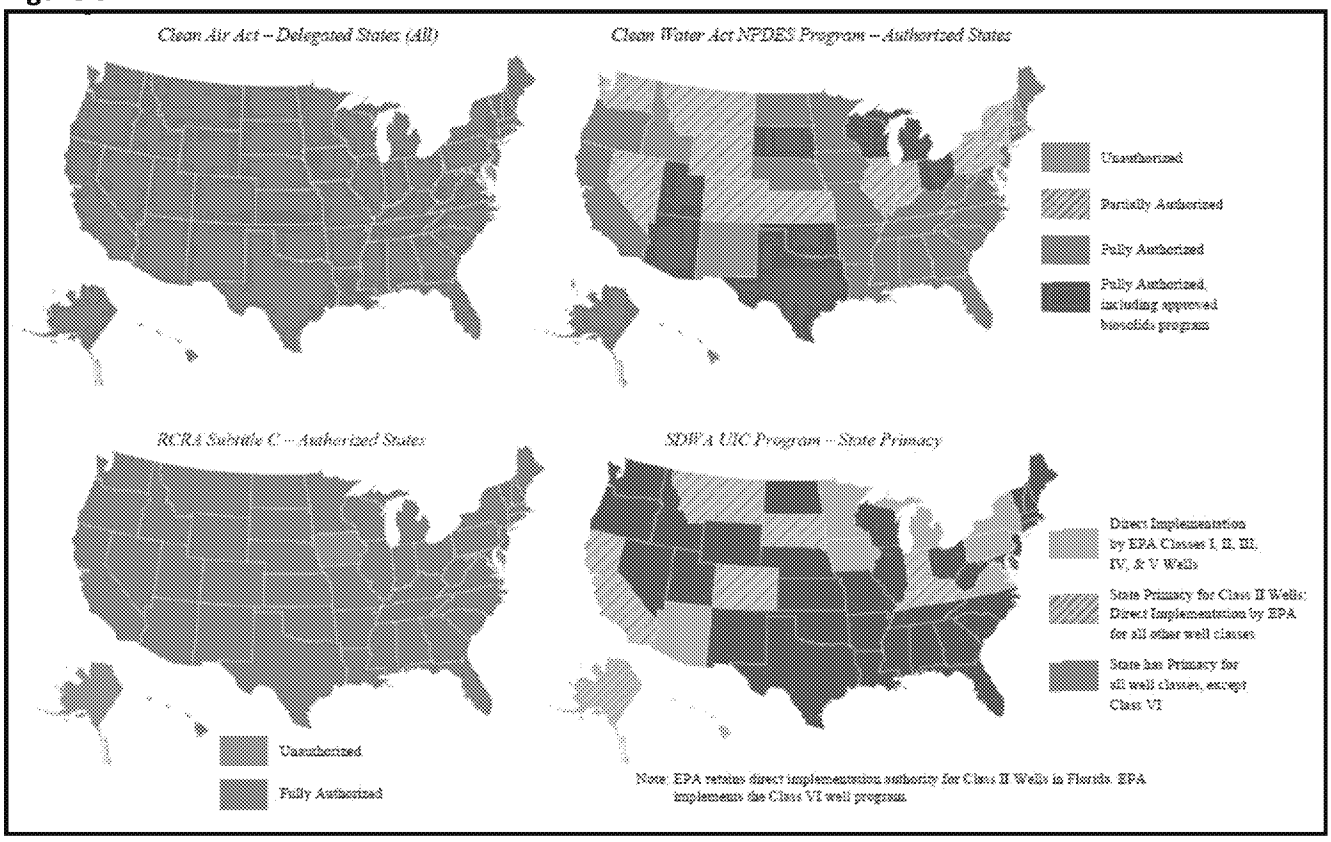
Figure 2.



Sources: [a]EPA, ECHO Web Application, Facility Search; [b]EPA, Biennial Hazardous Waste Report, 2015 Reporting Cycle; [c]EPA, Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste webpage; [d]EPA, ECHO Web Application, Pesticide Dashboard, National Pesticide Establishment Dashboard View; "Major" generally indicates a "large" facility or establishment. What constitutes large (or major) varies by statute by rule.

Responsibility for implementing these complex permitting programs does not rest solely on the EPA; it may be authorized or delegated to a state or tribal government under certain statutes. In order for EPA to authorize or delegate authority, a state or tribal government must demonstrate its program is equivalent to or more stringent than the federal program in a written agreement with EPA. An authorized or delegated state or tribal nation accepts primary responsibility for implementing the specific environmental program while EPA maintains a critical oversight role of the state or tribal authorized or delegated program. EPA also retains the authority to monitor compliance and enforcement activities in authorized or delegated states or tribal nations. **Figure 3** illustrates EPA-authorized, EPA-delegated, or EPA-approved state programs by statute.

Figure 3.



The following subsection provides a more detailed summary of relevant EPA statutes, regulatory requirements and permitting programs, including estimates of the regulated universe by statute and program.

I.A Clean Air Act

A majority of EPA's regulatory and permitting programs stem from the Clean Air Act (CAA), which was enacted by Congress in 1970 and subsequently amended in 1977 and 1990. Key permitting programs under the CAA include: the new source review permit program, the Title V operating permit program, as well as a number of other permit programs that apply to specific sources under specific circumstances.

New Source Review (NSR) Permit Program.[11] Under the NSR program, sources seeking to build a new facility, or undertake a major modification (e.g., a change that significantly increases emissions as defined in applicable regulations), must apply for and obtain a permit to ensure that the area in which the source is located will continue to attain or maintain the national ambient air quality standards (NAAQS). Facilities must comply with permit requirements, which may include: 1) what construction is allowed; 2) what air emissions limits must be met; and, 3) how the facility or pollution source can be operated. To ensure compliance with emissions limits, permits also contain monitoring, record-keeping, and reporting requirements. Minor NSR permits cover pollutants from stationary sources that do not require a prevention of significant deterioration (PSD) or non-

[11] The New Source Review Permit Program is authorized by U.S. Code, Title 42, Chapter 85, Subchapter I, Parts C and D, as well as Section 110(a)(2)(C) of Part A.

attainment NSR (NNSR) permits (i.e., emissions at levels below defined major source emission thresholds). States are able to customize the requirements of the minor NSR program as long as their program meets minimum requirements. Since the purpose of the NSR program is to attain compliance with the NAAQS, EPA may approve state, local, or tribal authorization to issue a NSR permit through a State Implementation Plan (SIP) revision.

Title V, Operating Permit Program.[12] The Title V program was established with the 1990 CAA Amendments. Operating permits apply to large industrial and commercial facilities and pollution sources. The operating permit essentially incorporates all applicable CAA requirements for the source, and ensures that there is adequate monitoring, recordkeeping, and reporting to assure compliance with these requirements. Sources with operating permits are required by the CAA to certify compliance with applicable permit requirements at least annually, and the permits themselves must be renewed every five years. These permits describe: 1) which pollutants are being released; 2) how much of each pollutant may be released; and, 3) what measures or steps are required to reduce pollution.

EPA may authorize Title V operating permitting authority to a state, local, or tribal government. In these cases, the authorized state, local, or tribal government has the primary responsibility for running permitting programs in their jurisdictions, including reviewing permit applications and issuing permits. In certain geographies, such as some U.S. territories, or states where no corresponding permitting program is implemented, EPA has the role of issuing permits.

Outer Continental Shelf (OCS) Air Permits. The CAA also includes a number of other permit programs that apply to specific sources under certain circumstances. For instance, the OCS Air permits establish the applicable air pollution control requirements, including provisions related to permitting, monitoring, reporting, fees, compliance, and enforcement, for facilities subject to the CAA section 328 and 40 CFR Part 55. These regulations apply to OCS Sources that are located beyond state seaward boundaries. Applicants located beyond 25 nautical miles from the state seaward boundary are subject to federal air quality requirements and will likely need an OCS permit to comply with the EPA's PSD preconstruction permit program, and/or Part 71 of the Title V operating permit program, among other federal requirements.

The OCS regulations are generally implemented and enforced by the EPA Regional Offices, but may be delegated to an adjacent or corresponding state or local air permitting agency. OCS sources are typically involved in oil and gas exploration, development, or production or offshore wind farm installation, and do not include Deepwater Ports involved in liquefied natural gas (LNG) import and export.

- As of April 12, 2017, ECHO indicates **170,787 active and operating facilities with air permits under the CAA**. This includes, **16,403 "major" facilities**.[13] As previously noted, "Major" generally indicates a "large" facility or establishment; what constitutes large (or major) varies by statute, by rule.

[12] Title V of the Clean Air Act is codified as U.S. Code, Title 42, Chapter 85, Subchapter V, Sections 7661 to 7661f. The Code of Federal Regulations, Title 40, Chapter I, Subchapter C, Parts 70 and 71 detail the requirements of the Operating Permit Program.
[13] See EPA's ECHO web application, Facility Search Feature, criteria: 1) Active/Operating; 2) Must Have Air Permit; and, 3) Major. https://echo.epa.gov/facilities/facility-search?srch=adv.

I.B. Clean Water Act

In 1972, Congress enacted the Clean Water Act (CWA), which amended the 1948 Federal Water Pollution Control Act.[14] There are two key permit programs under the CWA: the National Pollutant Discharge Elimination System and the Section 404 Permit Program.

National Pollutant Discharge Elimination System (NPDES). NPDES governs pollutant discharges from a "point source" into navigable waters.[15] Industrial, municipal, and other facilities must obtain permits if they discharge pollutants directly to surface waters. NPDES permits specify an acceptable level of a pollutant in a discharge and contain limits on discharges to water, monitoring and reporting requirements, and other provisions to ensure that discharges do not harm water quality of human health. They may also require compliance with certain generic best management practices, such as installing a screen over a pipe to prevent debris from entering a waterway. In so doing, NPDES permits ensure that mandatory standards for clean water are met. NPDES permits may not be issued for a term longer than five years; permittees that wish to continue discharging beyond a five-year term must submit an application for permit renewal. NPDES permits come in two forms: "individual" and "general" permits. NPDES individual permits reflect site-specific conditions of a single discharger, and are unique to that discharger. NPDES general permits are written to cover multiple dischargers with similar operations and types of discharges.

- As of April 12, 2017, ECHO indicates **229,725 facilities active and operating facilities with a NPDES permit**. This includes **12,537 "major" facilities**.[16]

Section 404 Permit Program. EPA also plays an essential role in the Section 404 Permit Program, which regulates the discharge of dredged or fill material into waters, including wetlands, as required under Section 404 of the CWA.[17] Except for certain farming and forestry activities, all development, infrastructure, and mining projects must receive a 404 permit before they can discharge dredged or fill material into water. The U.S. Army Corps of Engineers administers the 404 program on a day-to-day basis and enforces permit provisions, but EPA develops the environmental criteria to be used for the permit application, and determines the geographic jurisdiction and applicability of exemptions for the program.

When an entity applies for a Section 404 Permit, it must demonstrate that steps have been taken to avoid impacts to wetlands, streams, and other aquatic resources, that potential impacts from discharges have been minimized, and that compensation will be provided for all remaining unavoidable impacts. Similar to NPDES permits, general Section 404 permits can be issued on a nationwide, regional, or state basis for particular categories of activities, which eliminates the need

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[14] U.S. Code, Title 33, Chapter 26.

[15] EPA's regulations to implement and administer the NPDES permit program are located in the Code of Federal Regulations, Title 40, Part 122.

[16] See EPA's ECHO web application, Facility Search Feature, criteria: 1) Active/Operating; 2) Must Have Water Permit (ICIS-NPDES); and, 3) Major. https://echo.epa.gov/facilities/facility-search?srch=adv

[17] U.S. Code, Title 33, Chapter 26, Subchapter IV, Section 1344; https://www.epa.gov/cwa-404/c LEAN -water-act-section-404. EPA guidelines are established by EPA in the Code of Federal Regulations, Title 40, Part 230.

for individual review and allows activities to proceed with little or no delay, if the general permit's conditions are met.

I.C. Safe Drinking Water Act

Congress passed the Safe Drinking Water Act (SDWA) in 1974 to protect public health by preserving the quality of the nation's public drinking water supply.[18] The Act authorizes EPA to set national standards for drinking water quality, and then to act in concert with states and local water systems to ensure that these standards are met by taking actions to protect rivers, lakes, reservoirs, springs, and ground water wells. The key permitting regime under the SDWA is the Underground Injection Control Program.

Underground Injection Control (UIC) Program.[19] Among other requirements, the SDWA required EPA to develop minimum federal requirements for practices at injection wells to prevent contamination of underground sources of drinking water, which EPA does through its promulgation of the UIC Program. Under this program, all injection must be authorized under either general rules or specific permits. Because there are different classes of injection wells, the permit requirements differ.

Class I wells are those used to inject hazardous and non-hazardous waste into deep, confined rock formations; the permits for Class I wells address aspects of their siting, construction, operation, monitoring and testing, reporting and recordkeeping, and closure. Class II wells are used to inject fluids, primarily brines, associated with oil and natural gas production; Class II wells used for disposal purposes must be permitted, with the permits indicating construction, testing, and inspection requirements. Class III wells, which inject fluids used to dissolve and extract minerals, must be operated under individual or area-based permits, with construction, operation, testing, monitoring, and closure requirements. In 1984, EPA banned the use of Class IV injection wells. These wells may only operate as part of an EPA- or state-authorized ground water cleanup action. Class V wells are used to inject non-hazardous fluids underground. Most Class V wells are used to dispose of wastes into or above underground sources of drinking water. Class VI wells are used to inject carbon dioxide into deep rock formations and feature similar permit requirements, along with additional, tailored requirements that address the unique nature of injecting carbon dioxide.

Similar to programs promulgated under the CAA and CWA, states and tribes can acquire the primary responsibility to implement the UIC Program within their borders. In areas where a state or tribe has not applied for, or not been granted the ability to administer and implement the Program by EPA, EPA is responsible for Program implementation through one of its Regional offices.

- As of April 12, 2017, ECHO indicates **148,069 facilities with a registered identification number under the Safe Drinking Water Act.** This includes **1,049 "major" facilities**.[20]

[18] U.S. Code, Title 42, Chapter 6A, Subchapter 12.

[19] Code of Federal Regulations, Title 40, Parts 144 through 148.

[20] See EPA's ECHO web application, Facility Search Feature, criteria: 1) Active/Operating; 2) Must Have SDWA ID; and, 3) Major. https://echo.epa.gov/facilities/facility-search?srch=adv.

EPA also maintains a National UIC Inventory, which is updated annually.[21]

- The latest available National UIC Inventory (Federal Fiscal Year 2015) indicates a total of **62,381 permitted wells**, including Class I wells, Class II disposal wells, Class III wells, and Class VI wells.[22] In total, this inventory identifies: 140 Class I Hazardous Wells; 682 Class I Other Wells; 38,864 Class II Disposal Wells; 144,991 Class II Recovery Wells; 505 Class II Other Wells; 96 Class III sites; 22,688 Class III Wells; 29 Class IV Sites; 20 Class IV Wells; 476,898 Class V Wells; and, 7 Class VI Wells.

I.D. Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was passed by Congress in 1976.[23] The Act describes a national waste management framework mandated by Congress and gives EPA authority to develop a waste management program through regulations providing explicit, legally enforceable requirements.[24]

The requirements of RCRA, as implemented by EPA, institute a national system of solid waste control. Hazardous waste is regulated under Subtitle C of the Act; EPA has developed a comprehensive, cradle-to-grave **Subtitle C program** that ensures hazardous waste is managed safely from the moment it is generated through its final disposal. Specific regulations under this program establish criteria and regulatory requirements, including **permitting**, for hazardous waste generators and transporters, as well as facilities that treat, store, and dispose of hazardous waste.

Specifically, owners or operators of facilities where hazardous waste is treated, stored, or disposed must have a permit which governs the operational, closure, and post-closure standards of the facility. While facilities that generate hazardous waste are not required to obtain a Subtitle C permit governing their activities, they must still apply for an EPA Identification Number (EPA ID) and provide notification of their hazardous waste generation activities to the regulator. Note that some small hazardous waste generators are exempt from these requirements at the federal level, though state-specific requirements may still apply.

EPA employs a variety of data sources to track hazardous waste activities, including generation, transport, and management. EPA's RCRAInfoWeb application provides a detailed listing of all facilities generating, managing, shipping, and receiving hazardous waste through each hazardous waste biennial reporting cycle.[25]

- The latest available Biennial Report data (2015) indicate a total of **1,422 facilities managing and/or receiving hazardous waste.** This consists of 1,292 facilities reporting managing at least 0.1 tons of hazardous waste, 419 facilities reporting receiving at least 0.1 tons of hazardous

[21] See https://www.epa.gov/sites/production/files/2016-10/documents/underground_injection_control_inventory_fy_2015_0.pdf.
[22] To the extent that other well types, such as Class II non-disposal wells, may also be permitted on a geography-specific basis, this figure may be an underestimate.
[23] U.S. Code, Title 42, Chapter 82.
[24] The regulatory requirements for the waste management program under the Resource Conservation and Recovery Act are located in the Code of Federal Regulations, Title 40, Chapter I, Parts 239 through 282.
[25] See EPA's Biennial Report Summary application at https://rcrainfo.epa.gov/rcrainfoweb/action/modules/br/national/view.

waste, and 289 facilities receiving both managing and receiving at least 0.1 tons of hazardous waste.[26]

Like other statutes, under Subtitle C of RCRA, EPA may authorize states to implement certain key provisions of the hazardous waste program in lieu of the Federal government. Where a state program to do so does not exist, or where such authorization has not been granted, EPA directly implements the Subtitle C hazardous waste management program.

While hazardous waste is regulated under Subtitle C, RCRA also includes requirements for a non-hazardous waste program under **Subtitle D**, to be implemented by states. EPA established a number of provisions and regulatory requirements under Subtitle D for non-hazardous waste, including the banning of open dumping of waste, and the establishment of criteria for the operation of municipal waste and industrial waste landfills. States play a lead role in implementing Subtitle D regulations, and may set more stringent requirements than those established by EPA.

Congress amended RCRA in 1984 through the Hazardous and Solid Waste Amendments to the Solid Waste Disposal Act.[27] These Amendments added Subtitle I to RCRA, creating a federal program to regulate **underground storage tanks (USTs)**.[28] Subtitle I has been amended multiple times since, including through the Superfund Amendments Reauthorization Act in 1986, which authorized EPA to respond to petroleum leaks and spills and directed EPA to establish financial responsibility requirements for UST owners and operators. Faulty installation or inadequate operating and maintenance procedures can cause USTs, which mainly store petroleum, to release their hazardous contents into the environment. Accordingly, EPA regulations prevent health and environmental risks from soil and groundwater contamination through the establishment and maintenance of technical standards for operation and maintenance of USTs.

I.E. Toxic Substances Control Act

The Toxic Substances Control Act of 1976 (TSCA) provides EPA with the authority to require reporting, recordkeeping and testing requirements, and restrictions relating to chemical substances and/or mixtures.[29] Specifically, the Act addresses the production, important, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

One EPA focus under the TSCA is the **regulation of PCBs**, which are no longer commercially produced in the United States. However, because previously-produced PCBs can still be released into the environment, EPA regulates activities involving these hazardous substances.[30] Companies or persons

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[26] Estimated through use of the raw dataset underlying the 2015 Biennial Report, accessible at https://rcrainfo.epa.gov/rcrainfoweb/action/modules/br/national?__fp=TkHYkyKBockBCh7M23dwbKUMq0qZYlyJSf-hu-_9ZdyLr0rVOo9lbITa5cFs-3KhW9RpVFDJ-xvgM8nLOkGcHQ%3D%3D&d-4711493-e=2&searchCriteria.stateCode=ALL&search=Submit&searchCriteria.reportCycle=2015&6578706f7274=1&_sourcePage=bFHwrn6Vxz4UVqRHxxRfYn5dIoeSO33NCgWtginWANj_bzrB38Aiuw%3D%3D. Specifically, filtering on Column E, "Managed (Tons)" for non-zero values indicates 1,292 facilities; filtering on Column G, "Received (Tons") indicates 419 facilities. Combining Columns E and G and filtering for remaining non-zero values indicates 1,422 facilities.

[27] U.S. Statutes, Title 98, Chapter 3224; Public Law 98-616, November 8, 1984.

[28] EPA's regulatory requirements for USTs are codified in the Code of Federal Regulations, Title 40, Chapter I, Subchapter I, Parts 280 and 281.

[29] U.S. Code Title 15, Chapter 53, Subchapter I.

[30] EPA's PCB regulations can be found within the Code of Federal Regulations, Title 40, Chapter I, Subchapter R, Part 761.

transporting or disposing of PCBs must notify EPA and receive an EPA ID. These requirements also apply to entities conducting PCB research and development. In addition, EPA issues approvals for facilities to accept, store, and/or dispose of PCB waste on a facility-by-facility basis. EPA also issues approvals for certain types of PCB decontamination processes. EPA maintains lists of the facilities approved to accept, store, and dispose of PCB waste, as well as conduct other PCB activities.

- As of April 12, 2017, EPA data indicate that **58 facilities** have been issued disposal approvals by EPA under TSCA to accept and/or dispose of PCB waste. An additional **67 facilities** have been issued permits to store PCBs under proper disposal of these wastes can occur. **Seven facilities** have also been issued special EPA approvals for specific PCB decontamination processes.[31]

Under Section 5 of TSCA EPA has established an inventory of chemical substances. If a chemical is not already on the inventory, and has not been excluded by TSCA, a premanufacture notice (PMN) must be submitted to EPA prior to manufacture or import. The PMN must identify the chemical and provide available information on health and environmental effects. If available data are not sufficient to evaluate the chemical's effects, EPA can impose restrictions pending the development of information on its health and environmental effects. EPA can also restrict significant new uses of chemicals based upon factors such as the projected volume and use of the chemical.

I.F. Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1996 provides for federal regulation of pesticide distribution, sale, and use.[32] Under the Act, all pesticides distributed or sold in the United States must be registered (licensed) by EPA; only those pesticides whose use will not result in unreasonable risks to human health or the environment, or result in dietary risks, can be registered.

EPA's Office of Pesticide Programs holds primary responsibility for conducting the **Pesticide Registration Process** under the Act. In so doing, it evaluates scientific data and assesses the risks and benefits of a pesticide's use, designs label directions to control product use, requires training and certifications for applicators of restricted use pesticides and workers in pesticide-treated areas, and suspends or cancels pesticide registrations as necessary.[33]

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[31] See EPA, "List of PCB Disposal Facilities and Approvals by Technology Type and EPA Region," at https://www.epa.gov/pcbs/list-polychlorinated-biphenyl-pcb-disposal-facilities-and-approvals-technology-type-and-epa for the list of EPA-issued PCB disposal approvals. See EPA, "List of Approved PCB Commercial Storage Facilities by EPA Region," at https://www.epa.gov/pcbs/list-approved-polychlorinated-biphenyl-pcb-commercial-storage-facilities-epa-region for the list of EPA-issued PCB storage permits. See EPA, "Facilities that Have Obtained Approval for Specific Decontamination Processes," at https://www.epa.gov/pcbs/disposal-and-storage-polychlorinated-biphenyl-pcb-waste#PCBactivities, for the list of facilities with special EPA approvals for specific PCB decontamination processes.

[32] U.S. Code, Title 7, Chapter 6, Subchapter II.

[33] EPA regulations implementing pesticide-related statutes, including the Federal Insecticide, Fungicide, and Rodenticide Act, but also other statutes relating to pesticides, are available in the Code of Federal Regulations, Title 40, Chapter I, Subchapter E, Parts 150 to 189.

Section 7 of FIFRA also requires that production of pesticides, including formulation, packaging, repackaging, labeling, and relabeling, be conducted in a registered establishment. EPA maintains the Section 7 Tracking System.

- As of April 12, 2017, ECHO indicates **11,884 domestically-owned and registered pesticide-producing establishments**. ECHO further indicates **2,509 foreign-owned, registered pesticide-producing establishments**. These establishments include pesticide manufacturers, pesticide sellers, and pesticide distributors.

Unlike other statutes, which require permits or registrations for individual pollutant sources or for facilities, EPA's responsibilities under the FIFRA also pertain to the registration of individual pesticide *products*. Many publicly accessible databases provide inventories of pesticide products.

- As of April 12, 2017, the National Pesticide Information Center lists **408,203 federally-registered pesticide products**.[34]

II. Opportunities to Simplify EPA's Regulatory Programs and Associated Permitting Processes

As evidenced from Section I, EPA employs complex regulatory and permitting programs. EPA is committed to engaging in robust streamlining of its permitting regimes and reducing regulatory burdens for domestic manufacturers. While the agency has already made some improvements to its permitting processes, there are significant opportunities for reforms. Identifying and implementing those reforms will require collaboration with EPA's state and tribal partners and consultation with affected entities. Each effort will require its own set of performance metrics and outcome measures (e.g., reduced time, paperwork, duplication) in order to reduce costs and improve programmatic efficiency. Through these streamlining efforts, EPA believes the agency can create greater environmental results in the long-term and achieve the following goals:

- Speed manufacturers' "time-to-market" for new and improved products/facilities;
- Reduce the burden on manufacturer resources responding to the permitting process;
- Reduce the frequency and severity of unintended permit violations; and
- Increase clarity surrounding permitting requirements.

EPA views the permitting process as an opportunity for continuous improvement. Its Headquarters Program Offices and its Regional Offices have begun engaging in recent years in a number of business process improvement efforts. The success of these limited efforts highlight a significant opportunity to intensify and scale up EPA's overall efforts to realize even greater benefits. A few of these efforts are described below.

[34] See the National Pesticide Information Center's "Product Research Online" database at http://npic.orst.edu/NPRO/.

II. A. Continuous Improvement Efforts to Streamline Permitting Processes and Minimize Regulatory Burden

A cornerstone of EPA's improvement efforts to streamline permitting processes includes the E-Enterprise for the Environment ePermitting and eReporting strategy. **E-Enterprise for the Environment** is a new model EPA is undertaking to bolster collaborative leadership among environmental co-regulators. Through this strategy, EPA is working with the states and tribes to simplify, streamline and modernize the implementation of the Agency's environmental permitting and reporting programs. The tools and technology available to co-regulators are enhanced by mobile applications, online portals, smart tools and other investments in information technology. Streamlining processes and using smarter tools produces improved efficiency making co-regulators more productive. In turn, these productivity benefits also help regulated entities, such as those in the manufacturing sector, by reducing the time it takes to report and manage compliance.

In addition to E-Enterprise, EPA has launched several specific continuous improvement efforts depicted in **Table 2** and further described below that are tailored by media, statute, and regulatory program.

Table 2

Ongoing and Proposed EPA Actions to Streamline Regulatory and Permitting Processes
AIR – CAA (Title V, NSR)
✓ **Triage State Implementation Plans (SIPs):** EPA is engaged with its regional offices to reduce process steps to cut the time required to review and approve SIPs. A SIP is a state-specific federally-enforceable plan that identifies how a state will attain and/or maintain NAAQS. EPA has a backlog of nearly 700 SIPs dating back to 2013. Through an EPA LEAN event, EPA Region 7 created a SIP review process that reduces the number of steps from 165 to 134 and the number of decisions from 14 to 8. In Region 10, the SIP review process is now split in three tracks (fast, normal and high involvement), which has reduced the average process time from 19 months to 12.
✓ **EPA plans to continue its process towards finalizing the Title V Petitions Rulemaking:** EPA issued a proposed rule on August 24, 2016 (81 FR 57822), revising its regulations to streamline and clarify processes related to the submission and review of Title V petitions that could be submitted by a petitioner to challenge a proposed Title V permit.
✓ **Guidance on Ozone & $PM_{2.5}$ Significant Impact Levels (SILs):** EPA is in the process of crafting guidance to facilitate air quality assessments involving SILs as a compliance demonstration tool. SILs that can be used as alternatives to, or in conjunction with air quality modeling, and this guidance can streamline the modeling required in the permitting process.
✓ **Technical Guidance on Model Emissions Rates for Precursors of Ozone and Secondary $PM_{2.5}$:** EPA issued draft guidance to assist state and local air agencies and manufacturing permit applicants in conducting streamlined screenings for PSD compliance with Ozone and Secondary $PM_{2.5}$ NAAQS that reduces the burden of PSD compliance demonstrations.

✓ **Data Management Tool for Permitted Emissions Limits & Controls:** EPA maintains a "clearinghouse" documenting permit decisions, specifically related to NSR. The tool also includes information on standards such as reasonably available control technology (RACT), best available control technology (BACT), and lowest achievable emission rates (LAER). This resource can assist permit applicants by diminishing uncertainty and increasing transparency, which can advance facility's ability to comply with permits.
WATER – SDWA, CWA (SEC 402 [NPDES], SEC 404)
✓ **NPDES Applications and Program Updates Rule**: EPA is engaged in revisions to modernize NPDES regulatory requirements consistent with CWA amendments and recent case law. Specifically, EPA's proposed revisions would eliminate regulatory inconsistencies, improve permit documentation, enhance permit transparency, and eliminate outdated provisions.
✓ **Streamline NPDES Permit Application Forms**: EPA is considering streamlining the permit application process for all industrial sectors, including those required of new manufacturing facilities. Consistent with this effort, EPA is exploring options to modernize the application process, providing an online "fill-and-print" version of the forms.
✓ **NPDES Technical Assistance to Affected Manufacturing Facilities**: EPA is proposing to provide technical assistance to affected companies through a suite of information technology tools. The objective of these tools is to help the regulated universe quickly and efficiently identify which forms must be completed, and available resources to help in completing the forms.
✓ **Initiate a LEAN process for NPDES applications**: EPA is considering undertaking a LEAN initiative with the goal of eliminating inefficiencies in the permitting process, and minimizing duplication of effort. As part of this effort, EPA proposes to focus on developing training modules that focus on best practices for new permit applications to ensure that their NPDES application is complete and accurate, thereby avoiding unnecessary delays.
LAND – RCRA SUBTITLE C, TSCA
✓ **RCRA Streamlined Permit Renewal Process:** RCRA permits must be renewed every 5-10 years. Reviewing applications and approving permits can be a lengthy process— and if the process is unclear or has too many steps it creates backlogs that can potentially slow facility operations and take too much industry and government staff time to address. EPA partnered with the State of Massachusetts to conduct a LEAN event to streamline the RCRA permit renewal process. The new process simplifies and accelerates approvals. The time to develop a draft permit for renewal was more than halved: reducing the burden on facility operators and allowing them to invest staff time in other critical tasks.
✓ **RCRA Facilities Investigation Remedy Selection Track (RCRA FIRST):** Investigating facilities' RCRA contamination and selecting an approach to cleanup can take, on average, 16 years. Working with States and other stakeholders through a LEAN process, EPA is looking to reduce this time significantly, in some cases by more than 50 percent. EPA has started to use the RCRA FIRST to accelerate cleanup of contaminated sites and getting these sites ready for community redevelopment. RCRA FIRST is designed to save taxpayer dollars, reduce risks to human health and the environment, and expedite economic development.
✓ **PCB Facility Approval Streamlining Toolbox (PCB FAST)**: By working with stakeholders, EPA has learned about key issues that results in undue delays in PCB site cleanups. This can "mothball" properties for years – leaving them vacant and unavailable to communities for

economic redevelopment. Through one regional office (in San Francisco), EPA engaged partners in LEAN business process improvement exercises to reduce the time to approve PCB cleanup applications by 20 percent through. The outcome of PCB FAST is a streamlined, standardized template for the application that is transferrable across EPA's ten regions.

II.A.1. AIR – Clean Air Act (NSR, NAAQS, PSD)

- ***State Implementation Plans (SIP)***– A SIP is a state-specific, federally-enforceable plan that identifies how a state will attain and/or maintain the primary and secondary National Ambient Air Quality Standards (NAAQS) under the Clean Air Act (CAA). The EPA is required to review and approve SIPs for each state and, as of 2013, had a backlog of nearly 700 SIPs waiting to be reviewed. As of September 30, 2016, EPA significantly reduced that backlog, but still had a backlog of 322 SIPs.

  Notably, EPA Regions 7 and 10 made significant improvements to the SIP review process that drastically cut the time required to review and approve SIPs. Through EPA's LEAN government methods for identifying and eliminating waste, since 2013, EPA has reduced the backlog of SIPs waiting to be reviewed and approved by roughly 80%. Specifically, Region 7 is reducing its SIP review process steps from 165 to 134 and the numbers of decisions from 14 to 8; Region 10 is splitting its old process into three tracks (i.e. fast, normal, and high involvement), with a 36% average reduction in process time from 19 to 12 months. Along with their state partners, they eliminated steps, created standard procedures, clarified roles and responsibilities, and made many other improvements. Going forward, these improvements will allow EPA to more quickly review and approve plans, which will provide more certainty to states and local industries and better environmental protection for communities.

  EPA is preparing to share these new strategies and tools Agency-wide and with states to use to eliminate steps and clarify expectations for SIP review process in the next month or so. The expedited review process provides early guidance to states on non-attainment area designations and boundaries, developing a road map for each geographic area that outlines how stakeholders can collaborate. These developed tools will: create a schedule for the SIP development and review process for all parties; triage SIPs based on difficulty of review; shift from sequential to concurrent steps at as many points as possible in the process; and engage regional planning organizations for technical work on multi-state issues.

- ***Title V Petitions Rulemaking*** – EPA issued a proposed rule on August 24, 2016, (see 81 FR 57822) to revise its regulations to streamline and clarify processes related to submission and review of Title V petitions. The petition process rulemaking will allow EPA to take advantage of new technology and improve transparency for our stakeholders, and to support E-enterprise, an EPA-state initiative to improve environmental performance and enhance services to the regulated community, environmental agencies, and the public.

  The proposal covered five key areas, each of which should increase stakeholder access to and understanding of the petition process and aid the EPA's review of petitions. First, EPA proposed regulatory provisions that provide direction as to how petitions should be

submitted to the Agency. Second, EPA proposed regulatory provisions that describe the expected format and minimum required content for Title V petitions. Third, the proposal clarified that permitting authorities are required to respond to significant comments received during the public comment period for draft Title V permits, and to provide that response with the proposed Title V permit to EPA for the Agency's 45-day review period. Fourth, the guidance was in the form of "recommended practices" for various stakeholders to help ensure Title V permits have complete administrative records and comport with the requirements of the CAA. Fifth, this notice presented information on the Agency's interpretation of certain Title V provisions of the CAA and its implementing regulations regarding the steps following an EPA objection in response to a Title V petition. The public comment period closed on October 24, 2016. EPA plans to continue the process towards finalizing this rule.

- ***Guidance on Ozone and $PM_{2.5}$ Significant Impact Levels (SILs)*** – The CAA requires that a proposed source subject to PSD permitting demonstrate that its impacts will not cause or contribute to a violation of NAAQS or PSD increments. Significant Impact Levels (SILs) are compliance demonstration tools that can be used in air quality assessments, either as alternatives to or in conjunction with air quality modeling. This draft guidance provides these tools for ozone and particulate matter ($PM_{2.5}$) and a comprehensive basis for using them in making the required PSD air quality impact demonstration. Use of SILs as compliance demonstration tools can protect air quality but also streamline the air quality modeling in the permitting process for PSD sources. The guidance preserves the discretion of permitting authorities to use or not use SILs in their programs. The draft guidance is being revised according to comments received during the informal public comment period and technical peer review. EPA plans to continue the process towards finalizing this guidance.

- ***Technical Guidance on Developing and Use of Model Emissions Rates for Precursors (MERPs) for Ozone and Secondary $PM_{2.5}$*** – EPA issued this draft guidance to assist state/local air agencies and manufacturing permit applicants in conducting screening level PSD compliance demonstrations for ozone and secondary $PM_{2.5}$. This guidance streamlines the permit process by providing a framework for a suitable screening approach for ozone and $PM_{2.5}$ along with EPA modeling data for use in conducting the assessment for PSD. The guidance streamlines and reduces burden of PSD compliance demonstrations for ozone and secondary $PM_{2.5}$ by providing a specific screening technique based on EPA modeling that is scientifically credible and flexible for use by permit applicants. EPA received positive public comments on this screening technique in both its proposed rulemaking to revise *Guideline on Air Quality Models* and the draft guidance document. EPA plans to continue the process towards finalizing this guidance.

- ***Database of Permitted Emission Limits and Controls*** – The EPA has maintained a "clearinghouse" documenting permit decisions, specifically focused on NSR permits, and certain standards such as reasonably available control technology (RACT), best available control technology (BACT), and lowest achievable emission (LAER) . Over the past several years, the EPA has improved the electronic platform and content contained within the RACT/BACT/LAER clearinghouse. Opportunities remain to improve both the platform and the content in a manner that would better serve as a permitting support tool for not only the

regulated community, but also state/local permitting authorities. The EPA could engage in outreach with key stakeholders and identify aspects of this database that could be improved to support more streamlined and expedited New Source Review permitting.

- ***Outreach and Communication on Flexible Air Permitting Options*** – We intend to highlight and encourage use of flexible air permitting options by developing a comprehensive website and providing communication, outreach, and training to industry and permitting authorities on this issue. This would apply to both operating and preconstruction permits. This project would educate the regulated community as well as permitting authorities about the existing streamlined, but possibly underused, permitting options. These options are particularly useful to dynamic manufacturing sectors such as the semiconductor industry and other "quick-to-market" businesses that may have changes in product lines and other changes that can impact emissions. This effort would also dovetail with other efforts seeking to improve the economic competitiveness of the U.S. manufacturing sector.

II.A.2. WATER – SDWA, CWA (SEC 402, SEC 404), NPDES

- ***NPDES Applications and Program Updates Rule*** – EPA is proposing revisions that would modernize the National Pollutant Discharge Elimination System regulations. The revisions would eliminate regulatory and application form inconsistencies; improve permit documentation, transparency and oversight; clarify existing regulations; and remove outdated provisions. The proposed revisions would provide NPDES permit writers with improved tools to write well-documented permits to protect human health and the environment. The revisions would also provide the public with enhanced opportunities for public participation in permitting actions. These revisions would further align NPDES regulations with statutory requirements from the 1987 CWA Amendments and more recent case law requirements. Potential benefits include reducing regulatory burdens, costs, and uncertainty and increasing transparency, which can advance facility's ability to comply with permits, advancing environmental improvements, increasing production, and enhancing license to operate.

II.A.3 LAND – RCRA Subtitle C, TSCA

- ***RCRA Streamlined Permit Renewal Process*** – EPA Region 1 and the Massachusetts Department of Environmental Protection conducted an EPA LEAN event to streamline the RCRA permit renewal process. The new process simplifies and accelerates approvals by front-loading and standardizing communications with each permittee to ensure all parties understand expectations prior to submitting the application. As a result, the number of process steps were reduced from 31 to 24, while the time required to develop a draft permit was reduced from 15 to 6.5 months. The new process includes the following key strategies and tools: meeting face to face with the permittee before initiating the renewal process; using standard communications to establish expectations and a timeline upfront; dividing sections of the permit among a team; developing a tracking sheet to keep a schedule to complete the permit in 6.5 months; and using or adapting tools from the RCRA Permitting Toolbox to improve outcomes. EPA is making these tools available Agency-wide to simplify and accelerate approvals of RCRA permits.

- ***RCRA Facilities Investigation Remedy Selection Track (RCRA FIRST)*** – Before contaminated industrial sites can be cleaned up and redeveloped, EPA must complete the feasibility investigation and remedy selection process, which the RCRA FIRST approach through business process improvement is making far more efficient to save taxpayer dollars, reduce risks sooner, and expedite economic development.[35] EPA held two LEAN business process improvement events in which regional, headquarters, state, and industry representatives mapped and analyzed existing process steps. The two key root causes of delays in the old processes included: 1) no common understanding by all stakeholders upfront on site cleanup objectives; and 2) lack of an effective means to elevate and resolve cleanup issues. EPA then developed a new approach to the entire process, which when implemented will: reduce the planning and investigation phase by an estimated 49%, (i.e. 10 years to 5.1 years), and reduce the remedy selection phase by an estimated 75% (i.e. 6 years to between 1-2 years).

- ***PCB Facility Approval Streamlining Toolbox (PCB FAST)*** – EPA Region 9 reduced the time to approve PCB cleanup applications by 20% through an EPA LEAN business process improvement event. The improvements establish a standard template for the applications that can be used by other regions. Other best practices identified include reaching agreement upfront on the project plan before the application is submitted; completing the site characterization before submitting an application; and incorporating routine communication early and often lead to reduced time for the review. These changes will result in improving the quality of the application, reducing delays, and strengthening relationships with state partners and the regulated industry. A description of the LEAN event and all of the tools and lessons learned is being made available Agency-wide for others to simplify and accelerate the PCB cleanup approvals.

II. B. Potential Improvement Efforts to Streamline Permitting Processes and Minimize Regulatory Burden for Domestic Manufacturers

While the improvements described above are significant, the EPA acknowledges there are numerous opportunities for further reforms. Consistent with the Trump Administration's presidential memoranda and executive orders, EPA is committed to identifying additional opportunities to improve and streamline its permit processes and regulatory programs that impact the manufacturing sector. Potential new initiatives tailored by media, by statute follow. EPA expects to continue to review public comments received through its regulatory reform efforts and assess appropriate next steps for additional opportunities that may reduce burdens on domestic manufacturers.

II.B.1. AIR – Clean Air Act

- **Support to State and Local Air Permitting Authorities on Flexible Air Permits** - In addition to the ongoing efforts described above, the EPA could more directly engage with state and local

[35] https://www.epa.gov/sites/production/files/2016-06/documents/a_toolbox_for_corrective_action_resource_conservation_and_recovery_act_facilities_investigation_remedy_selection_track_rcra_first.pdf

air permitting authorities to support issuance of flexible air permits. The EPA could do this by offering support in permit reviews, supporting conversations between applicants and permitting authorities, and working collaboratively with state and local air permitting authorities.

II.B.2. WATER – Clean Water Act

Under the NPDES Program, there are several streamlining opportunities that, assuming resources are available, could be undertaken to achieve efficiencies.

- EPA could streamline EPA's NPDES permit application forms for all industrial sectors, including forms required of new manufacturing facilities. This is separate from the Applications and Program Updates Rule mentioned above. EPA's Office of Water could work with stakeholders to revise its NPDES permit applications and provide modernized, online "fill-and-print" versions of the forms to streamline use by new and expanding industrial dischargers. This cleanup and streamlining effort potentially could be done without revisions to existing application regulations.

  For background, new or expanding industrial and manufacturing facilities that discharge to waters of the United States, and which seek coverage under an "individual" NPDES permit, generally must submit detailed permit application forms to their federal or state permitting authority. The minimum contents of these application forms are established in federal regulations at 40 CFR 122.21. To support permit applicants, EPA developed a series of individual application forms for the various categories of applicants. While authorized state programs may develop their own application forms, many states utilize some or all of EPA's application forms.

  The current EPA application forms were developed and revised at various times over the past 30 years, and EPA has noted that there are inconsistencies in the structure, appearance, and detail of instructions accompanying these forms. Both applicants and state agencies have suggested that EPA should comprehensively revise the forms to provide a consistent look and feel, as well as consistent and enhanced detail in the instructions that accompany the forms. Over the past several years, EPA has begun to address these concerns and has developed initial drafts of all of its application forms. Potential benefits include reducing paperwork burden, which can decrease time spent by facilities to complete applications, waste, uncertainty, and potential for late submittals, as well as increase the overall accuracy in data collection and aggregation that will also improve ability for facilities to benchmark their environmental performance to their peers.

- EPA's Office of Water is proposing to provide technical assistance in a variety of forms to new manufacturing facilities for NPDES training and information technology tools. First, EPA could provide enhanced web resources to guide new manufacturing facility applicants through the NPDES permit application process. EPA could do this by developing an internet-based "wizard" to help new manufacturing facilities determine which forms are required to be filled out and to steer them in the direction of available resources to help them complete their permit applications. Potential benefits include reducing time spent by facilities to identify

correct forms to be completed and by simplifying instructions for doing so, which can provide them with more time to advance environmental improvements (potentially improving compliance rates), enhance their license to operate, increase production, and respond to customer requests.

Second, EPA could provide dedicated training to new industrial facilities to reduce delays associated with incomplete or incorrectly filled out NPDES permit applications. Ensuring that the information coming is complete and accurate is a LEAN way to reduce rework. EPA could develop a dedicated training module focusing on suggested best practices for new permit applicants to ensure that their NPDES application is complete and accurate and to avoid unnecessary delays related to incorrect filings. Potential benefits include reducing time spent, waste, and cost incurred by facilities in completing permit applications, which can provide them more time to spend on value added efforts, including advancing environmental improvements, increasing production, and responding to customer requests.

II.C. EPA Actions Regarding Specific Regulatory Reform Targets

EPA is committed to fulfilling the President's memorandum on permit streamlining and regulatory burden reduction for domestic manufacturers. There are actions, which EPA can take under its existing authority (without regulatory or statutory change) to streamline permitting and permit reviews. Specifically, EPA is focused on replicating and expanding prior successful LEAN business process improvement efforts and taking new actions based on the outcomes of such efforts, subject to budgetary and administration priorities.

Providing regulatory reform targets for EPA's permitting programs or regulations is neither simple nor straightforward. As previously discussed, the EPA is bound by the provisions of multiple statutes and myriad promulgated regulations supporting these statutory provisions. EPA has already taken steps to respond to several recent Executive Orders issued by the Trump Administration, including:

Executive Order 13771 (82 FR 9339, February 3, 2017) on Reducing Regulation and Controlling Regulatory Costs directs federal agencies to modify or repeal two existing regulations for each new regulation proposed or finalized in fiscal year (FY) 2017 and thereafter. Subsequent Office of Management and Budget (OMB) guidance established that costs for final, significant rules in FY17 need to be fully offset by cost savings from modification or repeal of other regulations. For FY2018 and beyond, the director of OMB will provide agencies with a total amount of incremental costs that will be allowed.

Executive Order 13777 (82 FR 12285, March 1, 2017) on Enforcing the Regulatory Reform Agenda directs federal agencies to designate a Regulatory Reform Officer and to establish a Regulatory Reform Task Force (Task Force). One of the duties of the Task Force is to evaluate existing regulations and make recommendations to the agency head regarding regulations that may be appropriate for repeal, replacement, or modification. The Task Force is also required to submit a progress report in mid-May, 2017.

Executive Order 13778 (82 FR 12497, March 3, 2017) on Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the "Waters of the United States" Rule directs EPA to review all orders, rules, regulations, guidelines, and policies implementing or enforcing the final "Waters of the United States" Rule. Formal rulemaking procedures will follow to rescind or revise any parts of the rule.

Executive Order 13783 (82 FR 16093, March 31, 2017) on Promoting Energy Independence and Economic Growth directs the EPA to review the Clean Power Plan, related rules, and New Source Performance Standards for Oil and Gas. The EO also directs agencies to review existing regulations, orders, guidance documents, and policies that potentially burden the development or use of domestically produced energy resources. Heads of agencies are required to submit a plan for the review of existing regulations to OMB by mid-May, 2017, followed by a draft report detailing actions taken under the EO by late July 2017 and a final report due in late September 2017.

EPA has taken several actions to respond to these directives. In response to EO 13777, Administrator Pruitt sent an agency-wide memorandum that announced EPA's Regulatory Task Force and designated Samantha Dravis, Senior Counsel to the Administrator and Associate Administrator for Policy, as EPA's Regulatory Reform Officer. The Administrator's memorandum also requested multiple EPA offices to solicit input from the public on regulations that could be considered for repeal, replacement, or modification. On April 13, 2017, EPA published a *Federal Register* notice that opened a public docket for a 30-day comment period to facilitate receipt of that input. In addition, EPA offices are holding multiple meetings and teleconferences over the next three weeks to hear ideas and suggestions for regulatory reform directly from the public. Information about those meetings is available on EPA's newly launched Regulatory Reform website (https://www.epa.gov/laws-regulations/regulatory-reform). The information gathered at the public meetings and teleconferences, as well as the public comments provided in response to EPA's solicitation and the Department of Commerce Request for Information (RFI) will inform the progress report required by EO 13777 that the Regulatory Reform Task Force will submit to the EPA Administrator by May 26, 2017.

In response to EOs 13778 and 13783, the EPA has already announced plans to review the Clean Water Rule, the Clean Power Plan, and related actions. In further response to EO 13783, the EPA Administrator has asked the Regulatory Reform Task Force to lead the Agency's efforts to review existing regulations that might burden the development or use of domestically produced energy resources. EPA program offices that are conducting public outreach in response to EO 13777 have been asked to look for input regarding such regulations and identify them to the Task Force. Under EO 13783, EPA has to submit a plan to the OMB Director by May 12, 2017, that proposes a plan to carry out the Agency's review of burdensome regulations on domestically produced energy. A draft report with specific recommendations is then due in late July.

EPA is taking regulatory reform very seriously, and has been proactive in soliciting input in a variety of venues that will inform multiple plans and reports that will be developed over the next few months by the Regulatory Reform Task Force in response to several Executive Orders. The regulatory

programs that affect domestic manufacturers also affect other industrial sectors, and the Task Force is looking to synthesize information from multiple sources, including the Department of Commerce RFI, comments in EPA's docket, input from public meetings, and recommendations from EPA programmatic offices to inform its work over the next few months. EPA believes through these efforts, the Agency can meaningfully improve its permitting and regulatory programs to reduce burdens on domestic manufacturers, consistent with the Administration's directives.

EPA Response to the Department of Commerce's Questions on the Presidential Memorandum on Permit Streamlining and Reducing Regulatory Burdens for Domestic Manufacturing

Appendices

Appendix A - includes background documents summarizing EPA's past efforts to quantify time taken for permit issuance

A.1 Timely Issuance of Permit Renewals and Significant Modifications under Title V, 2007. (chapter 3, pages 3-1 to 3-6)
A.2 NSR 90 Day Review, 2001. (Page 8)
A.3 Final Report to the Clean Air Act Advisory Committee, 2006. (executive summary and introduction)
A.4 RCRA Permit Modifications Report, 2016. (Page 15)
A.5 NPDES Permit Issuance Timeframes

Appendix B - includes process maps addressing relevant EPA statutes, associated regulatory programs, and related permitting processes.

B.1 Hazardous Waste, Treatment, Storage, and Disposal Facilities Regulations, 2011 (pages 3-10)
B.2 NPDES Permit Writers Manual, 2010. (Pages 3-1 to 3-6)
B.3 Clean Air Act – Title V Permit Issuance Timeline

A.1 Timely Issuance of Permit Renewals and Significant Modifications under Title V, 2007. (chapter 3, pages 3-1 to 3-6)

Link- timely issuance...

This evaluation examines the performance of state and local air permitting agencies ("agencies") with regard to the timely issuance of Title V permit renewals and significant permit modifications (SPMs). Our results indicate that over the past five years agencies have steadily improved their ability to issue renewal permits and SPMs on time, i.e., within the federal deadline of 18 months (540 days) from the receipt of a complete application.[1] In 2001, agencies issued approximately 68 percent of their permit renewals on time; by 2005, this percentage increased to approximately 94 percent. We noted a similar trend for the proportion of SPMs issued on time. In the same five-year span, agencies also significantly reduced their issuance timeframes for renewal permits and SPMs. Overall, the average time to issue renewal permits fell from 576 days in 2001 to 257 days in 2005, a reduction of approximately 55 percent. The average time to issue SPMs fell by 32 percent from 504 days in 2001 to 342 days in 2005.

Despite these trends, agencies continue to face challenges at various stages in the issuance process that can adversely affect their ability to draft, notice, and finalize renewal permits and SPMs on time. These challenges include internal factors such as competing priorities for agency staff, as well as external factors such as the tendency of applicants to submit incomplete applications and engage in negotiations with agencies over permit terms. A number of agencies have implemented policies or practices to address these various challenges and have identified ways for EPA to assist them in their efforts. This chapter discusses these challenges and specific actions taken by agencies to address them. The discussion is organized by the three overarching evaluation questions outlined in Chapter 1:

1) What are the performance characteristics, e.g., timeframes and procedures, in each step of state and local processes for issuing Title V permit renewals and significant permit modifications?

2) What are the root causes or factors that contribute to the performance characteristics associated with the issuance process for Title V permit renewals and significant permit modifications?

[1] 40 CFR Part 70.7(a)(2) directs air permitting agencies to "take final action on each permit application (including a request for permit modification or renewal) within 18 months, or such lesser time approved by the Administrator, after receiving a complete application." The Office of Management and Budget (OMB) adopted this regulatory deadline as a performance measure in its Performance Assessment Rating Tool (PART) review of EPA's Air Quality and Permit Program conducted in 2005 (available at http://www.whitehouse.gov/omb/expectmore/detail.10004377.2005.html). EPA has interpreted the PART measure as 18 months from the date on which an application is received to the date a final permit is issued.

3) What actions could federal, state, or local agencies take that would increase the efficiency and effectiveness of the issuance process for Title V permit renewals and significant permit modifications?

PERFORMANCE CHARACTERISTICS AND PROCESSES FOR PERMIT ISSUANCE

The evaluation's first objective is to better understand state and local agency procedures as part of the overall process for issuing renewals and SPMs, as well as the timeframes in which agencies complete permit issuances based on these procedures. This section presents issuance data that provide insights into agency procedures and context for the subsequent discussion of factors influencing timeliness in this report. We employed two approaches to ascertain agency processes and performance. In the first, we utilized agency responses to questions about issuance procedures to characterize the basic steps in the issuance process and estimate the range of timeframes for each step (see Tables 3-1 and 3-2). In the second, we used agency-supplied data on actual experiences related to rates of late issuance and issuance times for permit renewals and SPMs (see Appendix E and Figures 3-1 through 3-4).

Procedural Timeframes for Permit Issuance

With a few exceptions, the air permitting agencies follow the same basic protocol for the issuance of Title V permit renewals and SPMs outlined in the logic model in Chapter 1. (Details on each agency's procedures and timeframes are included in Appendix C.) These include the following steps:

1) The Title V source submits an application for a permit renewal or SPM (within six months of permit expiration for renewals). All 10 agencies reported receiving the majority of permit renewal applications on time, i.e., within six months of permit expiration. A number of agencies have taken additional steps to ensure that the applications they receive are complete as well as timely. MDE, MPCA, NJDEP, and OR DEQ send facilities the forms and/or instructions needed for completing their applications. Other agencies, such as BAAQMD, CT DEP, KDHE, TCEQ, and UT DEQ refer applicants to their websites where forms and instructions are provided.

2) The agency receives the application, conducts an administrative review, and makes a completeness determination. All 10 agencies have adopted the federal 60-day deadline for notifying facilities that their renewal applications are missing information before they are automatically deemed administratively complete.[2] A majority of agencies, including BAAQMD, KDHE, MDE, NJDEP, OR DEQ, and UT DEQ, perform their completeness determinations earlier. FL DEP and TCEQ do not perform an administrative completeness review (ACR) independently from their technical review. FL DEP conducts its administrative and technical review during the initial 60-day completeness period. At the TCEQ, applications are automatically deemed administratively complete within 60 days. The ACR conducted by MPCA is

[2] 40 CFR Part 70.7(a)(4).

limited to a cursory review of the components elements of the application forms, so most applications are deemed administratively complete.

3) If the application is incomplete, the agency notifies the applicant that additional information is needed to deem the application complete.

4) If the application is complete, the agency prepares a draft permit.

5) The agency notices the draft permit, responds to any comments received during this period, and holds public hearings, if requested.

6) The agency submits the draft permit to EPA for review. BAAQMD, CT DEP, KDHE, MDE, MPCA, TCEQ have implemented the practice of concurrent review whereby EPA begins its 45-day review of a draft permit simultaneously with the start of the public comment period. FL DEP has recently initiated concurrent review although it has not used it for any permit renewals or SPMs to date.

Tables 3-1 and 3-2 present the minimum and maximum timeframes we estimated for each step in the issuance process for permit renewals and SPMs (measured from application receipt to final permit issuance). We based these estimates on composite data obtained from permitting agency questionnaire responses, follow-up interviews, and supplemental materials provided by each agency. The minimum and maximum numbers reflect variation among agencies in the timing and procedural composition of each step, e.g., an abbreviated or integrated ACR. To construct these timeframes we assumed the following:

- All agencies make their completeness determinations within 60 days in accordance with the federal requirement, regardless of whether they conduct a detailed ACR or a combined administrative/technical review prior to permit drafting.

- All applications require applicants to supply additional information to enable permit drafting; the minimum and maximum number of days are based on agency deadlines for receipt of requested information and reported average applicant response times.

- Only a few draft permits receive public comments during the public comment period. Fewer require a public hearing. The minimum number of days in this period includes the time to notice the draft and respond to comments; the maximum number of days includes the above plus additional time to notice, conduct, and respond to comments made during a public hearing.

- The timeframe for the EPA Review includes the time to conduct a concurrent or sequential EPA review. For most agencies that use concurrent review, the minimum time is zero days, since the review is subsumed within the public comment period.

Using the minimum number of days for each procedural step, we estimated the issuance time for permit renewals to be less than 18 months, ranging from 8.6 to 17.6 months. For SPMs, it ranges from 6.2 to 12.6 months. This suggests that all agencies have the capacity to process

applications and issue permits within the federally mandated timeframe. We estimated the maximum renewal permit issuance timeframes to exceed 18 months for all but three agencies; the mean timeframe is 22.6 months. Conversely, even under the longest time estimates, all but two agencies have the capacity to issue SPMs within 18 months; the mean timeframe is 17.0 months.

A closer examination of the average minimum and maximum timeframes for permit renewals and SPMs suggests that the time needed to draft permits and conduct public hearings has a greater impact overall on timeliness than other steps in the issuance process. This finding is supported by agency rankings of the factors that contribute most to delay. As Tables 3-1 and 3-2 show, the difference in the number of days it takes agencies to begin and complete drafting permit renewals compared to SPMs also suggests that, all else being equal, the drafting step presents more challenges for renewals. The factors that contribute to delay during these steps in the process are discussed in greater detail in the following section.

Table 3-1 Estimated Agency Minimum and Maximum Time to Issue a Permit Renewal[a,b,c]

Agency	Days to Determine Initial Completeness		Days to Receipt of Additional Information		Days to Begin Drafting		Days to Complete Draft Permit		Days to Conduct Public Comment Period		Days to Complete EPA Review		Total Days from Application Receipt to Final Issuance		Total Months from Application Receipt to Issuance		Agency Permit Issuance Deadline	Conduct Detailed ACR	Use Concurrent Review
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max[1]	Min	Max	Min	Max	Min	Max			
MPCA	**60**	60	**30**	45	180	**180**	181	365	61	145	15	45	527	840	**17.6**	**28.0**	18 months[3]	No	Yes
UT DEQ	7	60	31	60	31	60	365	548	45	75	0	45	479	848	**16.0**	28.3		Yes	No[6]
CT DEP	60	60	31	45	91	180	181	365	90	150	0	45	453	845	15.1	28.2	12 months[2]	Yes	Yes
MDE	**12**	60	**30**	60	91	180	181	365	105	**195**	0	45	419	905	**14.0**	**30.2**	18 months[2]	Yes	Yes
BAAQMD	30	60	30	**60**	61	90	181	365	60	**120**	0	45	362	740	12.1	**24.7**	18 months[3]	No	Yes
FL DEP	**60**	60	**90**	150	**30**	30	**60**	60	67	**88**	55	55	362	443	**12.1**	**14.8**	90 days[4]	No[8]	No[5]
OR DEQ	30	60	15	30	61	90	181	240	51	**125**	5	45	343	590	11.4	**19.7**		Yes	No
TCEQ	60	60	30	45	**30**	30	90	90	90	**150**	0	45	300	420	**10.0**	**14.0**	330 days[2]	No	Yes
KDHE	7	60	15	30	91	180	91	180	55	120	0	45	259	615	8.6	20.5	180 days[2]	Yes	Yes
NJDEP	**1**	60	**15**	30	61	90	91	180	46	120	45	45	259	525	**8.6**	17.5		Yes	No
Averages[7]	33	60	32	56	73	111	160	276	67	126	12	46	376	677	12.5	22.6			

Notes:

[a]IEc based its estimates on responses to the questionnaire, follow-up interview questions, and data from supplemental materials.

[b]Agencies are sorted by the minimum total months from application receipt to issuance, from highest to lowest.

[c]Maximum totals in **bold** may be larger if the agency reported a range of days that equals or exceeds a given number. Minimum totals in **bold** may be lower if the agency reported a range of days that equals or is less than a given number.

[1]Includes timeframe for components under the minimum scenario (notice publication, public comment, response to comments) plus the time to notice and conduct a public hearing.

[2]From the date of receipt of application.

[3]From the date of receipt of complete application.

[4]Issuance of draft permit from completeness determination date.

[5]Although FL DEP is now using concurrent review for permit renewals and SPMs, the agency did not use it for permit renewals and SPMs included in the timeframe of this review.

[6]Although officially sequential, EPA conducts an early review during the public comment period, completing it within 2-3 weeks for some permits.

[7]Rounded to the nearest day.

[8]FL DEP does not conduct a discrete ACR but rather a combined administrative and technical review.

Table 3-2 Estimated Agency Minimum and Maximum Time to Issue a Significant Permit Modification[a,b,c]

Agency	Days to Determine Initial Completeness		Days to Receipt of Additional Information		Days to Begin Drafting		Days to Complete Draft Permit		Days to Conduct Public Comment Period		Days to Complete EPA Review		Total Days from Application Receipt to Final Issuance		Total Months from Application Receipt to Issuance		Agency Permit Issuance Deadline	Conduct Detailed ACR	Use Concurrent Review
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max[1]	Min	Max	Min	Max	Min	Max			
CT DEP	60	60	31	45	61	90	181	365	45	105	0	45	378	710	12.6	23.7	12 months[2]	Yes	Yes
BAAQMD	30	60	30	**60**	61	90	181	365	60	**120**	0	45	362	740	12.1	**24.7**	18 months[3]	No	Yes
FL DEP	**60**	60	**90**	150	**30**	30	**60**	60	67	**88**	55	55	362	443	**12.1**	**14.8**	90 days[4]	No[9]	No[5]
TCEQ	60	60	15	30	**30**	30	90	90	90	**150**	0	45	285	405	**9.5**	**13.5**	330 days[2]	No	Yes
MPCA	**60**	60	**15**	30	**30**	30	91	180	61	145	15	45	272	490	**9.1**	16.3	18 months[8]	No	Yes
KDHE	7	60	15	30	61	90	91	180	55	120	0	45	229	525	7.6	17.5		Yes	Yes
NJDEP	1	60	15	30	31	60	91	180	**45**	105	45	**45**	228	480	**7.6**	**16.0**		Yes	No
OR DEQ	30	60	**15**	15	**30**	30	91	180	51	**125**	5	45	222	455	**7.4**	**15.2**		Yes	No
UT DEQ	**7**	60	15	30	**30**	30	**90**	90	45	75	0	45	187	330	**6.2**	11.0		Yes	No[6]
Averages[7]	35	60	27	47	40	53	107	188	58	115	13	46	281	509	9.4	17.0			

Notes:

[a] IEc based its estimates on responses to the questionnaire, follow-up interview questions, and data from supplemental materials.

[b] Agencies are sorted by the minimum total months from application receipt to issuance, from highest to lowest.

[c] Maximum totals in **bold** may be larger if the agency reported a range of days that equals or exceeds a given number. Minimum totals in **bold** may be lower if the agency reported a range of days that equals or is less than a given number.

[1] Includes timeframe for components under the minimum scenario (notice publication, public comment, response to comments) plus the time to notice and conduct a public hearing.

[2] From the date of receipt of application.

[3] From the date of receipt of complete application.

[4] Issuance of draft permit from completeness determination date.

[5] Although FL DEP is now using concurrent review for permit renewals and SPMs, the agency did not use it for permit renewals and SPMs included in the timeframe of this review.

[6] Although officially sequential, EPA conducts an early review during the public comment period, completing it within 2-3 weeks for some permits.

[7] Rounded to the nearest day.

[8] If the SPM is determined to be "a major permit amendment to construct a modification," per state regulations, the agency must take final action on the permit within 14 months from the date an application is deemed complete if there are no public meeting/hearing and no significant adverse comments. Otherwise the deadline is 18 months for submittal of a complete permit application.

[9] FL DEP does not conduct a discrete ACR but rather a combined administrative and technical review.

A.2 NSR 90 Day Review, 2001. (Page 8)

Link- NSR 90 day review

Docket A-2001-19
Document II-A-01

NSR 90-Day Review
Background Paper

June 22, 2001

current actual emissions to their post-change potential emissions. For the electric utility industry, its 1992 "WEPCO rule" calls for comparing current actual emissions to post-change projected actual emissions.

The Permit Application Process

Once a source determines that NSR applies, it must then prepare and file a permit application. The basic steps associated with the permit application and issuance process include: (1) preparation of the permit application and participation in any associated pre-permit application meetings; (2) issuance of permit application completeness determination by the State; (3) development and negotiation of draft permit; (4) opportunity for public notice and comment on the draft permit; (5) response of permitting authority to public comments, if any; (6) possible administrative and judicial appeals. In addition the source must address any state and local requirements associated with the project. The time and resources expended on preparing and negotiating the content of the application and addressing the NSR or PSD requirements can vary depending on the quality of the information contained in the permit application and the nature, extent and environmental impact of the proposed project. Additionally, the level of public participation can also impact the resources associated with the application process. Sometimes sources will participate in meetings with the state permitting authority and other affected parties such as EPA, local government representatives, Federal Land Managers and citizens groups prior to filing the permit application to discuss these requirements. The following discussion describes the NSR or PSD requirements that must be addressed in the permit application process.

Basic Nonattainment NSR Requirements

The Nonattainment NSR requirements apply to sources that construct or modify in an area that is designated nonattainment for one or more pollutants. These provisions apply to the pollutants for which the area is in nonattainment. If a source increases emissions of a nonattainment pollutant and increases emissions of an attainment pollutant the following provisions apply only to the nonattainment pollutant. For the attainment pollutant(s), the PSD provisions, discussed later, would apply.

New major sources and existing major sources undertaking major modifications subject to nonattainment NSR must apply state of the art emission controls that meet the lowest achievable emissions rate (LAER). LAER is based on the most stringent emission limitation in any State's SIP, or achieved in practice by the source category under review.

In order to get a nonattainment NSR permit, the applicant must also offset its emission increase by securing emission reductions from other sources in the area. The amount of the offset must be as great or greater than the new increase, and is based on the severity of the area's nonattainment classification. The more polluted the air is where the source is locating or expanding, the greater the emissions reductions required to offset the proposed increase. Offsets must be real reductions in emissions, not otherwise required by the Clean Air Act, must be enforceable by the EPA, result in a positive net air quality benefit and assure reasonable progress towards attaining the NAAQS. In general, offsets must be secured for the entire life of the source. However, under EPA's Economic Incentives Program, a source does not need to have the full amount of the offsets necessary to cover the entire life of the source at the time the source begins operation. Instead, the

source can purchase additional offsets periodically to meet the offset requirement.

.

Each applicant must also conduct an analysis of "alternative sites, sizes, production processes, and environmental control techniques...[that] demonstrates the benefits of the proposed source significantly outweigh the environmental and social costs of its location, construction, or modification." The applicant must also certify that all of its other sources operating within the state are in compliance with the Clean Air Act and SIP requirements. Finally, the public must be given adequate notice and opportunity to comment on each permit application.

In addition to the basic steps identified above, when preparing a permit application, the applicant must research and propose LAER for the source category at issue and secure valid offsets as a condition of the project's approval.

Basic PSD Requirements

New major sources and existing sources that undertake major modifications that are subject to PSD must apply best available control technology (BACT). When preparing a BACT analysis, the permit applicant must typically undertake the following steps: (1) identify available pollution control options; (2) eliminate the technically infeasible options; (3) rank the remaining control technologies by control effectiveness; (4) evaluate the most effective controls (considering energy, environmental, and economic impacts) and document the results; and (5) discuss the appropriate BACT selection with the permitting authority. The permitting authority then specifies an emission limit for the source that represents BACT.

Each PSD applicant must also perform an air quality analysis, which may include pre-application monitoring data, to demonstrate that the new emission increase will not cause or contribute to a violation of any applicable NAAQS or result in a significant deterioration of the air quality. Finally, each applicant must also conduct an analysis to ensure that the increase does not result in adverse impact on air quality related values, including visibility, that affect designated Class I areas, such as wilderness areas and national parks.

Changes that do not trigger NSR

There are a number of ways that sources can undertake new construction or modification without the need for a major NSR permit. First, as noted above, there are certain activities that are exempt from NSR because they are defined in the regulations as exclusions from the definition of a physical change or change in the method of operation. For example, a routine change is exempt from NSR. Certain pollution control projects are also exempt from NSR, even those that increase emissions, if they meet environmental safeguards established by EPA.

Even if a change does not qualify for one of these exemptions, a change at a major source does not trigger NSR if the emissions increase is below the level defined as significant. Many projects have emissions increases that are below these levels and never trigger NSR. Where a project's maximum capacity to emit would be above the significance levels, a source often uses a common NSR avoidance strategy -- a limit on potential to emit, or PTE limit. In a PTE limit, a source agrees to limit the size of the proposed project's emissions increase by taking a permit

limit to keep emissions below the significance level. Such limitations can be accomplished by installing modern pollution controls, or by limiting some unit's operation (e.g., limiting fuel burned or hours operated)[11].

Furthermore, even if the proposed change would result in a significant increase and cannot be limited as just described, the source may offer past or future emissions decreases at other units to offset the increase from the proposed change. Many more sources rely on netting or PTE limits to avoid NSR than actually obtain NSR permits. These transactions can result in significant emissions reductions, but a full review of these benefits is beyond the scope of this report.

General data on the NSR program's implementation

Preliminary estimates based on EPA's most recent data indicate that approximately 250 facilities apply for a PSD or nonattainment NSR permits annually. There are approximately 20,000 sources that would be classified as major under the Clean Air Act, and many more stationary sources that are not large enough to be called major. Specific permitting data for utilities and refineries are presented in the sector-specific portions of this paper; the data in this section pertain to all source categories.

Based on an EPA review of about 900 permits since 1997, the average time needed to obtain a major NSR or PSD permit, across all industries, is approximately 7 months from receipt of the complete permit application. Specific data for the electric generation and refining industries are reported in the sector-specific sections of this paper. In recent years, permitting times have been reduced for all source types.

Figure 1: Average Permitting Time for PSD permits*

Permitting Time 1997 - 1998	Permitting Time 1999 - early 2001	Overall Average Time 1997 - 2001
Average: 8 - 9 months Range: 1.5 – 35 months	Average: 6 - 7 months Range: 3 - 12 months	7.2 months

*These times are based on a total of 391 PSD sources for which sufficient data were available to calculate permitting time. Permitting time is defined to include the time period from the date on which the permit application is filed through the date on which the final permit is issued.

Improved permitting time can be explained in part by permit applicants having more pre-application meetings with the permitting agency and submitting applications with what is believed to be current BACT. Based on experience, the most common sources of delay in permit issuance are the submittal of an incomplete application, the selection of a BACT option that the permitting authority believes to be less stringent than required, and public opposition to the permitting authority's draft BACT determination. Over time, as permit engineers from the industrial sector, the permitting authority, and EPA become familiar with specific issues, permitting can be done faster, as has recently been the case with turbines. Finally, recent emphasis by EPA, state, and local permitting authorities on permitting for new electric generating capacity and refining capacity appears to be resulting in shorter permitting processes.

[11] In addition to limiting the PTE of a project to stay below the significance levels for a major modification, some sources limit their entire facility PTE to levels that keep the source from being classified as a major source.

General environmental impacts of NSR

Recent work by EPA indicates that over the period from 1997-1999, the BACT component of the PSD program has resulted in emissions reductions of over 4 million tons (or an annual average of about 1.4 million tons) compared to what emissions would have been if the controls otherwise required in the absence of PSD had been applied instead[12]. These data are based on a thorough review of approximately 900 PSD permits issued since 1997. Figure 2 summarizes these data by pollutant.

Figure 2: Estimated Emissions Avoided Due to PSD BACT Permitting (1997 – 1999) (short tons)

PM/PM10	180,000
SO2	1,260,000
NOx	2,540,000
CO	65,000
VOC	25,000
TOTAL	**4,100,000**
Annual average over time period	***1.4 million tons per year***

The review on which these numbers are based included only PSD permits. Therefore, these emissions reductions estimates do not include emissions reductions for control technology and offsets in nonattainment areas.

The emissions reductions that result from pollution control required under NSR are not the only way that the NSR program keeps pollution out of the air. Each year many companies make modifications to existing facilities, and even construct entirely new facilities, without obtaining and NSR permit by keeping emissions lower than the amounts for which permits are required. This process is sometimes referred to as "netting out" of NSR. [13] Because EPA is usually not involved when companies make changes that do not require NSR permits, we do not have data on the amount of pollution avoided as a result.

Benefits Associated with Electricity Generating Emissions Reductions Realized Under the NSR Program

[12] Typically, in the absence of BACT, the controls required would be a federal New Source Performance Standard (NSPS), and/or a limit from an applicable State Implementation Plan (SIP).

[13] For example, if a power plant located in an attainment area makes a change that would increase its emissions of NOx by 50 tons per year but at the same time installs pollution control technology that would reduce its NOx emissions by 35 tons per year, the plant would not have to obtain an NSR permit because its net emissions increase (15 tons per year) would be less than the 40 tons per year that makes a change a major modification.

A.3 Final Report to the Clean Air Act Advisory Committee, 2006. (executive summary and introduction)

link to full report

Title V Task Force

Final Report to the Clean Air Act Advisory Committee

Title V Implementation Experience
April 2006

FINAL REPORT
TO THE CLEAN AIR ACT ADVISORY COMMITTEE ON
THE TITLE V IMPLEMENTATION EXPERIENCE

Prepared by:

The Title V Task Force

April 2006

TABLE OF CONTENTS

TRANSMITTAL LETTER

EXECUTIVE SUMMARY 1

1. INTRODUCTION 1

1.1 CHARGE TO THE CAAAC TASK FORCE ON TITLE V IMPLEMENTATION EXPERIENCE 1

1.2 TITLE V TASK FORCE MEMBERS 2

1.3 TASK FORCE METHODOLOGY 3

Selection of Task Force members 3
Public Testimony 3
Identification of Issue Areas 4
Process for Developing Each Issue Area 4

1.4 REPORT STRUCTURE 7

2. PURPOSE OF TITLE V OPERATING PERMIT PROGRAM 8

3. PROGRAM OVERVIEW ISSUE AREAS 10

3.1 TOPIC: TITLE V PROGRAM BENEFITS 10

Issue/Observation Description 10
Discussion Summary 11
Recommendations 12
Supporting Information 12

3.2 TOPIC: TITLE V PROGRAM COSTS 20

Issue/Observation Description 20
Discussion Summary 21
Recommendations 23
Supporting Information 23

Table of Contents
(Continued)

4. CONTENT ISSUES 34

4.1 TOPIC: INCORPORATION OF APPLICABLE REQUIREMENTS 34

Issue/Observation Description 34
Testimony and Comments Received 34
Discussion 36
Recommendations 37

4.2 TOPIC: INSIGNIFICANT ACTIVITIES AND EMISSION UNITS 41

Issue/Observation Description 41
Testimony and Comments Received 42
Task Force Discussion 43
Recommendations 44

4.3 TOPIC: MONITORING 47

Issue/Observation Description 47
Comments and Testimony Received 49
Task Force Discussion 50
Recommendations 57
Attachment: Additional Comments 59

4.4 TOPIC: TITLE I/TITLE V INTERFACE 64

Issue/Observation Description 64
Supporting Information 64
Recommendations 71

4.5 TOPIC: NEW SUBSTANTIVE REQUIREMENTS AND DEVELOPMENT OF OPERATIONAL RESTRICTIONS 76

Issue/Observation Description 76
Supporting Information 76
Discussion 79
Recommendations 81
Attachment: Relevant Excerpts Re: New Substantive Requirements 82

4.6 TOPIC: DEFINITIVENESS OF PERMIT 93

Issue/Observation Description 93
Legal Requirements 93
Comments Received 95
Other Information 95
Task Force Discussion 96
Recommendations 97
Attachment 98

Table of Contents
(Continued)

4.7 TOPIC: COMPLIANCE CERTIFICATION FORMS 108

Issue/Observation Description 108
Supporting Information: Comments Received 109
Discussion: How much Information Should be Required in a Compliance Certification? 114
Recommendations 118
Attachment: Exhibits A & B—Compliance Certification Forms 121

4.8 TOPIC: STARTUP, SHUTDOWN, AND MALFUNCTION 136

Issue Observation/Description 136
Statutes/Regulations/Guidance 136
Summary of Comments Received 141
Task Force Discussion 141
Recommendations 144
Attachment 145

4.9 TOPIC: COMPLIANCE SCHEDULES 150

Issue/Observation Description 150
Summary of Comments 152
Task Force Discussion 153
Attachment: Text of EPA Regulations 155
Attachment: Testimony and Comments Received 156

5. PROCESS ISSUES 162

5.1 TOPIC: EPA REVIEW OF PROPOSED PERMITS 162

Issue/Observation Description 162
Discussion Summary 162
Recommendations 166
Supporting Information 167

5.2 TOPIC: PUBLIC ACCESS TO DOCUMENTS 169

Issue Observation/Description 169
Supporting Information 170
Testimony and Comments Received 171
Discussion 172
Recommendations 178

5.3 TOPIC: PUBLIC HEARINGS 180

Issue Observation/Description: 180
Supporting Information: Comments Received 180
Task Force Discussion 183
Recommendations 188
Attachment: Relevant Testimony 190

Table of Contents
(Continued)

5.4 TOPIC: PUBLIC NOTICE THROUGHOUT PROCESS 200

Issue Observation/Description: 200
Summary of Comments Received 201
Discussion 203
Recommendations 210
Attachment: Relevant Testimony 214

5.5 TOPIC: STATEMENT OF BASIS 225

Issue/Observation Description 225
Supporting Information 225
Testimony and Comments Received 227
Task Force Discussion 229
Recommendations 231

5.6 TOPIC: RESPONSES TO PUBLIC COMMENTS ON DRAFT PERMITS 234

Issue Observation/Description 234
Discussion 234
Recommendations 238
Attachment: Relevant Comments 241

5.7 TOPIC: PERMIT RE-OPENING, REVISIONS AND OPERATIONAL FLEXIBILITY 243

Issue/Observation Description 243
Background 244
Supporting Information: Comments Received 247
Task Force Discussion 250
Recommendations 256

5.8 TOPIC: APPEALS AND PETITIONS 262

Issue/Observation Description 262
Supporting Information: Comments Received 262
Task Force Discussion 265
Recommendations 267

APPENDIX A: LIST OF SPEAKERS AT PUBLIC MEETINGS ON TITLE V IMPLEMENTATION EXPERIENCE

APPENDIX B: LIST OF ADDITIONAL WRITTEN COMMENTS RECEIVED ON TITLE V IMPLEMENTATION EXPERIENCE (SUBMITTED TO EPA DOCKET NO. OAR-2004-0075)

APPENDIX C: COPY OF SLIDES USED BY THE TITLE V TASK FORCE IN BRIEFING THE CLEAN AIR ACT ADVISORY COMMITTEE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 29 2006

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Task Force on Title V Implementation Experience

FROM: for William T. Harnett Michael A. Ling
Director, Air Quality Policy Division (C504-01)

TO: Clean Air Act Advisory Committee (CAAAC) Permitting, NSR and Toxics Subcommittee

Please find enclosed the Final Report of the Task Force on Title V Implementation Experience. You formed the Task Force in May 2004 to review the implementation and performance of the operating permit program under title V of the 1990 Clean Air Act Amendments. The Task Force has compiled a substantial body of public testimony and written comments concerning what is working or not working in the title V permit program. Collectively, the Task Force members and EPA spent thousands of hours over the past two years on this effort. Included in the report are a number of recommendations for consideration by CAAAC and EPA. These recommendations and the discussion accompanying them are the culmination of a great amount of thoughtful deliberation about how the program can be better implemented. Consistent with your charge, the report reflects the core issues of concern to all stakeholder groups and all of their perspectives of how best to address them. The Task Force hopes that this work product will be very useful to both the CAAAC and to EPA.

EPA would like to express its gratitude to all members of the Task Force for their dedication to this project and the large amounts of time they devoted to its completion. EPA and the public at large are deeply indebted to all members of the Task Force for the careful translation of the public testimony into recommendations for the improvement of many areas of the title V program.

The Task Force would like me to pass along their thanks to the EPA staff for their hard work in facilitating this process as well as to recognize the efforts of EC/R Incorporated representatives for arranging our meetings and for their valiant efforts to prepare notes on our activities.

We entrust this report to your deliberation and seek your direction on how EPA should proceed to implement the Task Force's recommendations.

EXECUTIVE SUMMARY

In 2004, the Clean Air Act Advisory Committee (CAAAC) established the Task Force on Title V Implementation Experience ("Task Force") to report on stakeholder experience with implementation of the Title V operating permit program. The 18-member Task Force, which consisted of representatives from industry, environmental groups, and State and local agencies, used public meetings, written comments, and individual experience as resources to identify and evaluate the Title V program and develop recommendations. This report represents a compilation of the issues identified and includes summaries of Task Force discussions, key supporting stakeholder experience, conclusions, and recommendations. Since the report represents the perspectives of the various stakeholders there are some issues and recommendations with Task Force consensus, and others where the report notes the differences.

As background, the Clean Air Act of 1990 provided for the development of a national operating permitting system for major sources of air pollution. Under this new section (Title V), State and local air pollution control agencies would issue permits that would contain all of the requirements that were needed for a source to maintain compliance with State and Federal air pollution control regulations. Furthermore, the Title V permit would be directly enforceable by the permitting authority issuing the permit and EPA. It is also subject to the citizen suit provisions of the Act. From the beginning, implementation of Title V has been difficult and controversial. After 15 years, there are still significant issues associated with the operation of the program.

The Task Force identified a number of program benefits that were generally recognized across the spectrum of stakeholders. These include:

- Recording of applicable requirements in one document clarifies regulatory requirements for permitting agencies, the public, and facilities.
- Improved public participation at various stages of the permitting process.
- Improved communication between regulatory agencies and facilities has resulted in better permits and mutual understanding of compliance requirements.
- Establishment of a funding mechanism to provide resources to administer State permit programs.
- Improved source compliance assurance systems, driven by Responsible Official obligations and reporting of deviations and a strengthened penalty/enforcement mechanism.

In evaluating the Title V program, the Task Force categorized key issues into 19 different areas. For each topic the Task Force characterized the issue, developed recommendations, summarized Task Force discussions, and included supporting comments from public hearings and written testimony. The topics included in this report are:

- Program Overview Papers
  - Benefits
  - Costs
- Content Issues
  - Incorporation of Applicable Requirements
  - Insignificant Activities and Emission Units
  - Monitoring
  - Title I/Title V Interface
  - New Substantive Requirements
  - Permit Definitiveness
  - Compliance Certification
  - Startup, Shutdown, and Malfunction
  - Compliance Schedules
- Process Issues
  - EPA Review of Proposed Permits
  - Public Access to Documents
  - Public Hearings
  - Public Notice Throughout Process
  - Statement of Basis
  - Responses to Public Comments
  - Permit Revisions and Operational Flexibility
  - Appeals and Petitions

The Task Force developed an extensive list of recommendations. Although there were no external constraints on the scope of the recommendations of the Task Force, the members recognized that recommendations which could be implemented under current legislative/regulatory authority would be easier, and more timely, to implement. The recommendations are included in each topic area. Given the diverse views of the Task Force there is no consensus list of recommendations or conclusions, although the votes shown on each recommendation indicate the degree of consensus.

The Task Force believes that an EPA assessment and implementation of many of the recommendations will provide for an improved Title V operating permit program. A program that achieves program objectives in a more efficient manner will benefit all stakeholders.

1. INTRODUCTION

1.1 CHARGE TO THE CAAAC TASK FORCE ON TITLE V IMPLEMENTATION EXPERIENCE

The Permitting Subcommittee of the Clean Air Act Advisory Committee establishes the Task Force on Title V Implementation Experience, and charges it with this objective:

The Task Force will report to the committee on the experiences of stakeholders who have been working in the Title V permitting arena (*i.e.,* a "State of the Title V program" report). The report should reflect the perspectives of all stakeholder groups, and should reflect an effort to answer two questions:

1. How well is the Title V program performing?

For example, has it:

- Resulted in permits that clearly compile all a source's applicable requirements into a single document?
- Enabled sources, States, EPA, and the public to better understand the requirements that apply to a source?
- Enabled sources, States, EPA and the public to better know whether a source is meeting these requirements?
- Triggered actions that result in better compliance with the CAA?
- Allowed for better enforcement of CAA requirements?
- Improved citizen participation in air quality decisions by involving the public in the issuance of permits?
- Improved EPA's ability to implement and oversee CAA programs, including toxics, acid rain, etc?
- Enhanced governments' ability to do air quality planning?
- Ensured self-funding adequate to run effective programs?
- Resulted in better air quality?

2. What elements of the program are working well/poorly?

The answers to these questions should, to the maximum extent possible, reflect consideration of stakeholders' real world experience with the Title V program, and should include examples – good and bad – that illustrate this experience. Where possible, emphasis should be placed on actual examples, but in some cases, hypothetical examples may provide the best illustration.

When the Task Force has gathered sufficient information to characterize the various perspectives on Title V implementation experience, as described above, it may also elect to offer recommendations for improving the Title V program.
The report and any recommendations made should reflect the full range of stakeholder perspectives discussed. The Task Force may characterize consensus statements and recommendations as such, but where there is not consensus, the report should detail the full range of issues discussed and views expressed during the process.

In order to ensure that the discussions reflect sufficient depth, but also ensure a broad collection of stakeholder perspectives, the Subcommittee recommends that the Task Force conduct at least three full-day meetings, and have at least one meeting outside of the Washington D.C. area. The EPA will explore options for supporting the Subcommittee's work, such as providing transcripts and summaries of these meetings.

1.2 TITLE V TASK FORCE MEMBERS

State/local Permitting Agencies	
Rob Sliwinski and John Higgins	New York Department of Environmental Conservation (NY DEC)
Shelley Kaderly	Nebraska Department of Environmental Quality (NE DEQ)
Don van der Vaart	North Carolina Dept of Environmental Management (NC DEM)
Adan Schwartz	Bay Area Air Quality Management District (AQMD)
Bob Hodanbosi	Ohio Environmental Protection Agency (OH EPA)
Steve Hagle	Texas Council on Environmental Quality (TCEQ)
Environmental Advocacy Groups	
Karla Raettig and Kelly Haragan	Environmental Integrity Project
Marcie Keever	Our Children's Earth
Bob Palzer	Sierra Club
Verena Owen	Lake Co. (IL) Conservation Alliance
Keri Powell	New York Public Interest Research Group (NYPIRG)
Richard Van Frank	Improving Kids' Environment
Industry	
Shannon Broome	Air Permitting Forum
Lauren Freeman	Utility Air Regulatory Group (UARG)
Bernie Paul	Eli Lilly and Company
Bob Morehouse	ExxonMobil
Mike Wood	Weyerhaeuser Company
David Golden	Eastman Chemical

Support and Facilitation

EPA	
Bill Harnett, Michael Ling and Ray Vogel	Office of Air Quality Planning and Standards
Steve Hitte	Region IV
Callie Videtich	Region VIII
Padmini Singh	Office of General Counsel
Carol Holmes	Office of Enforcement and Compliance Assistance
EC/R Incorporated	
Graham Fitzsimons	
Shannon Cox	
Lesley Stobert	
Steve Edgerton	
Kathy Boyer	

1.3 Task Force Methodology

Selection of Task Force members

The formation of the Task Force and a public solicitation of candidates was announced in a May 17, 2004 Federal Register (69 FR 27921). With a goal of creating a reasonably small and diverse group, the EPA selected an 18-member Task Force comprised of experienced representatives from industry, environmental advocates and State and local agency officials.

Public Testimony

The charge from the CAAAC Permitting Subcommittee instructed the Title V Task Force to issue a report that "should reflect the perspectives of all stakeholder groups." The subcommittee recommended that the Task Force conduct at least three full-day meetings, at least one of which should be outside the Washington, D.C. area.

Consistent with its charge, the Task Force held three public meetings at these locations:

June 25, 2004	Washington D.C.
September 14, 2004	Chicago, IL
February 7, 2005	San Francisco, CA

In addition, a public conference call on November 15, 2004 was held with environmental advocates, to obtain testimony from those who might be unable to afford travel to one of the public meetings. Also a public conference call on February 8, 2005 was held with State and local agencies, because the Task Force believed that the public meetings up to that point had underrepresented the views of State and local permitting agencies. Industry stakeholders presented their views by appearing in person at the public meetings or filing written comments; however, they were not provided a separate conference call. From the meetings and conference calls, testimony was received from 74 speakers, of

which 18 represented industry, 18 represented State and local agencies and 38 represented environmental advocacy groups.

Also, written comments were received until March 31, 2005. A total of 44 comment letters were received: 18 from industry, 13 from State and local agencies and 7 from environmental advocates. In addition, 34 studies and supporting documents were submitted to the docket.

Full text of the public testimony is available on www.epa.gov/caaac/titleV. The written comments are also available on www.epa.gov/caaac/titleV and on www.regulations.gov at docket (enter docket number OAR-2004-0075 into "advanced search"). In addition, sections of public testimony and written comments are liberally quoted or summarized in this report in many issue areas.

Identification of Issue Areas

In evaluating the input received, the Task Force divided the various comments into Issue Areas. (See Table 1.3-1). These Issue Areas are the ones of most interest to stakeholders and Task Force members. Therefore they don't necessarily reflect some of the original charge questions posed by the CAAAC. For example, there was very little input on items like air quality planning (one of the example CAAAC questions) so the Task Force did not focus on areas not highlighted by stakeholders. The goal of the Task Force was to cover a broad range of issues while giving meaningful treatment to each. This necessarily means that not every issue raised by stakeholders is reflected in the body of the report. The Task Force wishes to emphasize that its decision not to address in the body of the report a particular issue on which testimony was provided should not be interpreted as a decision that the issue is unimportant. Given our limited time, we attempted to prioritize the issues based on the degree of input received and the likelihood of having productive discussions within the Task Force.

Process for Developing Each Issue Area

Each Issue Area was taken on by small groups of Task Force members to frame the issues and sub-issues, to summarize the supporting information presented in the oral and written public comments and to suggest recommendations for consideration by the entire Task Force. Once issue papers were developed, face-to-face meetings were held to hear the viewpoints of each member of the Task Force, modify the framing of the issues or sub-issues within the topic if necessary, and discussing and voting on potential recommendations. Five face-to-face meetings were held from February 2005 to January 2006. In addition, the Task Force added days either before or after some public meetings to move its work forward. Finally, a large number of conference calls between the face-to-face meetings were held to discuss issue papers, to suggest and vote on recommendations and to discuss development of the report.

To ensure that all issues and potential recommendations were considered, we allowed anyone on the Task Force to suggest a recommendation and held discussions on all offered recommendations. In some cases, recommendations were modified to garner addi-

tional support and thus may represent a compromise position by some or all persons voting in favor of a recommendation. Even if a proposed recommendation did not receive a majority of votes from members of the Task Force, we have included it in the issue paper to provide a complete picture of the issues we discussed and people's viewpoints. Thus, the term "recommendation" is used for all proposed recommendations whether or not a recommendation received a majority of votes from the group. It was our desire not to eliminate viewpoints simply because they were not held by a majority of members. At the same time, the nomenclature of "recommendation" should not be read to indicate that every recommendation is endorsed by all of the Task Force. To draw conclusions on how strongly a recommendation has the support of all Task Force members, the reader is directed to review the voting for each recommendation and the Discussion section in the paper.

Where possible, we also included in the Discussion section of a paper an explanation of the deliberations so that the reader can understand why someone may have supported, opposed, or abstained from voting for a particular recommendation. For example, a vote against a recommendation may have been based on a particular phrase of concern in the recommendation, or it may have been against the recommendation as a whole. While we cannot recreate the entire discussion (and we doubt anyone would want to read it if we could), to the extent possible, the summary of the Task Force discussions in each paper is intended to help the reader understand what concerns and policies motivated particular votes. We also included an option to abstain from a particular vote as well as to offer clarifications of a vote. The clarification option allowed members of the Task Force to explain their votes, *e.g.,* how they interpreted a particular word or phrase in the recommendation, or why they abstained from voting for the recommendation. Finally, although Task Force members participated in discussions and voted with the intent of representing the viewpoint of the organization they were representing to the best of their ability, the votes themselves are to some degree personal votes in that the Task Force did not open its process to allow the organizations themselves to vote on recommendations.

The following areas were identified by the Task Force for the purpose of developing issue papers for further discussion. The order of this list is alphabetical and does not reflect any particular priority.

Table 1.3-1 Issue Areas identified by the Task Force

Topic
1. Compliance Certifications
2. Compliance Schedules
3. Definitiveness of Permit
4. Deviation Reporting*
5. EPA Review of Proposed Permits
6. Incorporation of Applicable Requirements
7. Insignificant Activities/ Emission Units
8. Monitoring
9. New Substantive Requirements
10. Permit Reopening, Revisions, Current and Operational Flexibility
11. Petitions and Appeals
12. Program Benefits
13. Program Costs
14. Public Access to Documents
15. Public Hearings
16. Public Notice throughout Process
17. Responses to Public Comments on Draft Permits
18. Startup, Shutdown, and Malfunction
19. Statement of Basis
20. Title I/Title V (SIP gap; *e.g.,* old NSR)

* No paper was ultimately developed on this issue.

1.4 REPORT STRUCTURE

As described in the Task Force Methodology section, this report represents a work product based on input received from four public meetings, two public conference calls to receive input, numerous written comments submitted, and extensive discussions at Task Force meetings from 2004-2006.

The report has been structured to achieve the following:

- To capture and summarize key input from multiple stakeholders on the Title V program as received in public hearing and written submittals.
- To capitalize on the experience of Task Force members to identify, characterize, and prioritize Title V issues.
- To develop recommendations to improve the Title V program. The recommendations go beyond the original charge to the Task Force (which focused on how the program is performing and elements of the program that are working well/poorly).

The main body of this report is organized by Issue Areas. The Task Force agreed to write an issue paper for each issue area in a standard format. Thus, each paper contains the topic, a brief Issue/Observation Description, Supporting Information, a Task Force Discussion Summary (based on meeting or conference call discussions), and, where possible, Recommendations. The issue papers were used by the Task Force to facilitate discussions but also evolved as a result of those discussions. The Supporting Information referenced above represents either a summary of public hearing input/written comments or direct quotes from the public meetings and written comments. Some papers include attachments with additional supporting information as well.

The report also includes a summary of the purpose of the Title V Operating Permit program. It is important in evaluating the Title V program to provide a frame of reference for the analysis. This section provides a brief overview of the legislative and regulatory history of the Title V program.

The final report includes all of the recommendations that were considered by the Task Force. So as to better represent the spectrum of viewpoints, the Task Force allowed its members broad latitude to offer recommendations. Members used the voting system to support, disagree with, or abstain from each recommendation, and could also offer alternate recommendations. As noted above, though time was devoted to discussion of each recommendation with the goal of moving towards consensus, each recommendation offered by a Task Force member was included in the report regardless of the degree of consensus behind it.

A.4 RCRA Permit Modifications Report, 2016. (Page 15)

Link - RCRA Permit Modifications Report

RCRA

HAZARDOUS WASTE PERMITTING PROGRAM

Permit Modifications Report:

Safeguarding the Environment in the Face of Changing Business Needs

January 2016

EPA United States Environmental Protection Agency

EPA530-R-15-001

ACKNOWLEDGMENT
This report was developed by hazardous waste permitting experts in state environmental programs and in the Environmental Protection Agency (EPA)'s Office of Resource Conservation and Recovery and regional offices.

EPA wishes to acknowledge and thank the following contributors of this report: Paula Bansch (Indiana, IDEM), Bob Bullock (Idaho, DEQ), Jamie Burroughs (Tennessee, TDEC), Tricia Buzzell (EPA), Lilybeth Colón (EPA), Gail Hansen (EPA), Becky Holmes (Montana, DEQ), Denise Housley (EPA), Julia King-Collins (Virginia, DEQ), Matthew Loesel (EPA), Bud McCarty (North Carolina, DENR), Richard Nussbaum (Missouri, MDNR), Christine Roob (North Dakota, Dept. of Health), Tab Sommer (EPA), Will Steele (Louisiana, DEQ), and Farshad Vakili (California, DTSC).

For questions about the report, please contact Tab Sommer, 703-605-0636, sommer.tab@epa.gov.

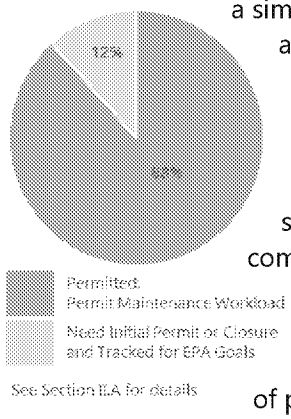
EXECUTIVE SUMMARY

The majority of facilities that are treating, storing, or disposing of hazardous waste have been issued permits under the Resource Conservation and Recovery Act (RCRA). The bulk of permitting activity has now shifted to responding to business needs and changes in facility operations while ensuring that the permitted conditions continue to be protective and prevent release. This report demonstrates the value of maintaining healthy RCRA permitting programs in order to efficiently respond to changes needed at facilities.

WHY HAZARDOUS WASTE PERMIT MODIFICATIONS ARE NECESSARY

Under RCRA, facilities managing hazardous waste must obtain a permit from their regulatory authority (i.e., the state or EPA). The purpose of the permit is to detail how a facility must comply with the RCRA regulations to ensure that hazardous waste management activities are conducted so as to prevent and address releases that could threaten public health and the environment and lead to potential cleanup obligations. These permits are site-specific and establish the technical and administrative standards to which a facility must adhere to legally and protectively manage hazardous waste. Thus, it is critical that modifications to the permit are made as necessary to enable the facility to effectively continue to operate treatment, storage, and disposal units.

Changes to permit conditions are often required to keep pace with evolving business practices, technology, cleanup decisions, and regulations. For example, permit modifications allow facilities to update technological systems, comply with new environmental standards, respond to changing waste streams, address financial assurance requirements, or simply improve their hazardous waste management practices. These changes in turn can support enhanced operational efficiency, economic development, conservation of resources, improved prevention of environmental releases, and cleanup progress.



Most facilities may need to modify their permit more often than the permit needs to be renewed to accommodate time-critical business decisions, such as construction of a new waste management unit. Timely permit modifications enable facilities to efficiently expand and update their operations, adopt advanced greener technologies, remediate contamination, and address other vital business needs, while remaining protective of human health and the environment.

MOST PERMIT-RELATED WORK OCCURS AFTER INITIAL PERMIT ISSUANCE

The issuance of an initial permit reflects just the beginning of the permit-related work conducted by the regulatory authority. Over the life of a typical permitted hazardous waste management facility, significantly more time is devoted to permit maintenance than to permit issuance.

To better understand the workload associated with permit modifications, a group of state and EPA representatives reviewed data on permit modifications approved in 2011 through 2013. On average, 826 permit modifications were approved each year over the three-year period.

Permit modifications vary greatly in terms of complexity – a simple modification (Class 1 or Minor changes, such as a change in contact information) can be completed in as little as two or three hours. Class 1 modifications represent 83% of permit modifications reviewed during the period. More substantial modifications (Class 2, 3, and Major, such as adding a new waste management unit) combined represent 17% of permit modifications. The more substantial modifications can take up to 1,850 staff hours to address. Modifications that are technically complicated or have a high degree of public interest can take over a year to finalize (in addition to the 105 days of public review for Class 3's). See Section III for the process and timeframes for different classes of modifications.

Facilities that need permit maintenance are a large percentage (88%) of the RCRA permitting program's priority workload. However, the work has not been fully communicated or understood since modifications are not currently recognized under EPA performance goals and are not addressed in most state-EPA planning and budget negotiations. In that regard, this report presents a first look at the story of permit modifications, including the workload expended by states and EPA and the outcomes achieved for the environment and regulated community.

Contents

INTRODUCTION

PART 1

I. WHAT HAPPENS TO A FACILITY AFTER IT IS PERMITTED? 7
- A. Continual Work for Protection of Human Health and the Environment 8
- B. Permit Modification Requests: Objectives and Outcomes 9
- C. Permit Maintenance Activities 10

II. THE UNTOLD STORY 12
- A. Why Modifications are an Untold Story 12
- B. Why an Efficient Permit Modification Process is Necessary 14

III. PERMIT MODIFICATIONS: STATUS AND STATISTICS 15
- A. Permit Modification Process and Timeframes 15
- B. Permit Modification Statistics 19
- C. Location of Permitted Facilities with Potential for Modifications 22

IV. CONCLUDING POINTS 23

PART 2

PERMIT MODIFICATION CASE STUDIES 24
- A. Responding to Changing Business Practices or Operations 25
- B. Improving Hazardous Waste Management 32
- C. Ensuring Long-Term Protection 36
- D. Keeping Permits Up to Date 41
- E. Modifications over the "Life of a Permit" 45

APPENDIX

1. Modifications Types Based on Regulatory Descriptions
2. Permit Modification Data: Background and Details

Introduction

A. Purpose of this Report

The purpose of this report is to describe the changing nature of RCRA hazardous waste permitting work and demonstrate how an adequate and effective permit program is vital, not only for initial permits, but also throughout the permit term to enable necessary permit maintenance activities. Permit conditions that are developed when permits are initially issued frequently need to be revised during the permit term to address evolving facility conditions, for example, in response to business changes, as well as changes in applicable regulatory requirements. Permit maintenance, including permit modification, assures that permits remain effective, and allows owners and operators to adjust facility operations to meet changing conditions and demands.

This report highlights the workload associated with maintaining permits and describes why permit modifications are critical in order to enable improved business operations while maintaining protection of human health and the environment.

B. Background

The EPA established comprehensive protective national standards for managing solid and hazardous waste. These regulations for treatment, storage, and disposal facilities ensure that facilities that manage these wastes have the necessary controls to safeguard communities and the environment, while facilitating commerce by supporting an effective waste management structure. These controls are imposed primarily through permits and these permits are predominantly issued by authorized states.[1]

Permits are essential to making the RCRA Subtitle C regulatory program work, since it is through the permitting process that the EPA or the states apply standards to hazardous waste treatment, storage, and disposal facilities (TSDFs). With permits and other enforceable waste management controls, RCRA actively protects the health of communities near hazardous waste management facilities, including the estimated 20 million people living within a mile of these facilities.[2] For example, RCRA requirements for landfills to install liners and leachate collection systems prevent hazardous contaminants from migrating into soil and potentially into surface water and groundwater, which are sources of drinking water. Furthermore, by containing leaks and spills, RCRA permit controls safeguard families and their homes from possible exposure. Permits also protect the public from hazardous air emissions by regulating hazardous waste combustors, including incinerators as well as boilers and commercial and industrial furnaces that combust hazardous waste, and by ensuring that volatile waste is properly contained and managed.

The public plays an important role in the permitting process for hazardous waste facilities. They and other interested parties can contribute valuable information and ideas that improve the quality of both agency decisions and permit applications. EPA has written regulations that create opportunities for the public to

[1] EPA Regions implement the RCRA program in Alaska, Iowa, and some territories. EPA regions also implement certain parts of the program for which some states have not yet been authorized (e.g., corrective action and some HSWA combustion regulations).

[2] Estimate drawn from an analysis that merged facility size and location information from RCRAInfo with population data, at the block and block group levels, from the U.S. Census Bureau's 2000 Census. The demographics were captured around the total number of facilities that have approved controls in place (e.g., permits and other approved controls) that result in the protection of this population (20 million people).

learn about RCRA activities and give input during the process for permit issuance and for modifications. There are meetings, comment periods, and hearings specifically for the public to engage companies and regulators in a dialogue. Furthermore, EPA encourages permitting agencies, permit holders or applicants, and other interested parties to provide additional public participation activities where it will be helpful.

Since the program has been implemented, permits and other enforceable controls have been put in place to prevent dangerous releases at over 20,000 units.[3] Almost half of those units continue to require some level of oversight.[4] The states (and EPA) regularly issue, modify, and update RCRA permits for hazardous waste units (such as incinerators and landfills) at facilities that treat, store, or dispose of hazardous waste. These RCRA permits establish the waste management activities a facility can conduct as well as the conditions under which it can conduct them.

Over the life of a typical permitted hazardous waste management facility, significantly more time is devoted to permit maintenance than to permit issuance. Permit maintenance involves a number of activities among which permit modifications are the most significant. The work involved after permit issuance/reissuance and the results of those efforts have been largely unrecognized mainly because RCRA permit modifications have not been included under EPA performance goals. This paper tells the story of permit modifications and the important role they play in keeping permits current. It also describes common challenges and complexities inherent in the permit modification process and highlights case studies that offer a glimpse of the content, process, and workload.

With facilities constantly changing, it is critical that states and EPA maintain sufficient expertise and resources to process permits in a timely manner and allow businesses, especially those in the manufacturing sector, the opportunity to adjust to variable markets. Although the vast majority of hazardous waste management facilities have permits in place, there is a continuing challenge to keep pace with technology in a way that encourages safe and innovative waste management.

C. Organization of this Report

This report is divided into two primary components:

- **Part 1** provides information on the permit modification process. It describes what happens to a facility after it has received a permit, discusses why permit modifications have been largely an "untold story" in light of the focus on issuing and renewing permits, and provides facts and figures to set context for the workload associated with responding to modification requests.

- **Part 2** presents a series of case studies that show permit modifications "in action." The case studies describe real-world situations where the state permitting programs and businesses have worked together at facility improvements – where changes to permits continue to ensure proper safeguards remain in place and allow companies to respond to changing business needs or pursue innovative approaches to responsible hazardous waste management.

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[3] These units have met the criteria for "approved controls in place to prevent release," per the unit information entered into RCRAInfo. This includes historical records. See the GPRA "approved controls" description in Appendix 2.

[4] The oversight total (9,000 units) is from RCRAInfo in the "Full Oversight Workload for Permitting (Operating and Post-closure) and Closure Report" as of 3-12-14.

PART 1

I. WHAT HAPPENS TO A FACILITY AFTER IT IS PERMITTED?

Permit Issued/ Reissued

Under RCRA, facilities must have a hazardous waste permit for units that treat, store, or dispose of hazardous waste. RCRA permits provide facility owners and operators with the legal authority to treat, store, or dispose of hazardous waste and detail how the facility must operate in order to comply with the regulations. The final permit also takes public input into consideration.

Permits are issued for a maximum of ten years (although permits can be administratively continued). This permit term limit ensures that facilities are periodically reviewed and requirements are updated as necessary.

Examples of Changes over the Life of a Permit

- Operating -

1. Change waste streams managed
2. Add capacity in existing units
3. Incorporate new units in the permit
4. Comply with new regulations (e.g., for incinerator units)
5. Improve waste management in order to save costs and conserve natural resources
6. Upgrade to more efficient/green technologies
7. New ownership triggering financial assurance reviews

- Closure, Post-Closure, Facility-Wide Cleanup -

1. Close storage tanks/remove conditions for unit
2. Improve cleanup process for historic contamination
3. Institute and assess new monthly groundwater monitoring
4. Select final remedy for facility-wide cleanup
5. Extend post-closure care period for landfills

- Recurring Changes -

1. Change in the general permit provisions (e.g., schedule of compliance, corrections, adjustment of unit conditions)
2. Change in the general facility standards (e.g., emergency response/coordinator, sampling, and analysis)

EPA views permits as living documents that can be modified to address changing circumstances. Neither the permitting agency nor the facility owner or operator can anticipate all of the administrative, technical, or operational changes required over the permit term for a facility; therefore, permit modifications are inevitable.

Permitted facilities must request and receive approval for proposed procedural, mechanical, physical, and process changes that deviate from their approved permits. Such permit modifications can involve a significant level of effort on the part of the regulating authority including: discussions with the facility representatives to understand the change, class determination, technical review, regulatory analysis, comment, discussion, data entry, public notice, comment response, site visit to visually inspect the area being modified and document updates. Refer to Exhibit 5 for the main regulatory process steps and see Section I.C for a more comprehensive list of permit maintenance activities.

Permit Modifications Issued for each Change

Permit modifications and maintenance are critical for continued safe waste management. The prevention of dangerous releases also circumvents the need for new costly cleanups.

A. Continual Work for Protection of Human Health and the Environment

Permit writers continually work with facilities to ensure that sound operating procedures and proper waste management practices are being conducted in a way that is protective of human health and the environment. When changes to facility design and operations are proposed, permit writers assess the impacts, including the potential for releases of hazardous waste or hazardous constituents. Permit writers also make sure that permits reflect decisions that enable facility cleanup to effectively move forward. (See the case studies in Part 2 for specific examples.)

The permit establishes the administrative and technical conditions under which a facility must operate. The permitting authority's ongoing oversight of facility operations and interactions with the facility contacts are essential to ensuring the continual protectiveness of permit conditions. These activities are an important element of permit maintenance and can help both parties identify potential modifications that might be needed to support evolving waste management methods or other changing needs at the facility.

Permit maintenance prevents hazardous waste releases as operations change:

Initial permit conditions are established in order to ensure hazardous waste is safely managed and to prevent releases to the environment. As facility operations or other factors change through time, permitting authorities need to work with the facility to ensure that conditions outlined in the permit *continue* to prevent releases and require best waste management practices.

There are valid environmental reasons for formal approval of the facility changes in order to prevent release. For example, secondary containment not adjusted to allow for increases in quantity of hazardous waste managed could pose an increased risk of release, which in turn may result in human exposure and a lengthy and costly cleanup. The regulator must assess changes in order to ensure that they are appropriate and protective.

The RCRA Hazardous Waste Permitting Program

The Resource Conservation and Recovery Act (RCRA) provides the general requirements for EPA's waste management program. The RCRA hazardous waste permitting program, established under RCRA Subtitle C, ensures the safe treatment, storage, and disposal of hazardous waste by establishing administrative and technical requirements under which a hazardous waste management facility must operate.

Permits typically include conditions governing facility design and operation; safety standards; emergency plans; corrective action programs designed to respond to releases; financial assurance for unit closure and post-closure maintenance; and other required activities, such as employee training, monitoring, and reporting. The permitting process includes the issuance of initial permits, modifications, renewals, and termination.

Facilities that are required to obtain RCRA permits must request and receive approval for procedural, mechanical, physical, and process changes that deviate from their approved permits.

For more information about hazardous waste permitting, see http://www2.epa.gov/hwpermitting

B. Permit Modification Requests: Objectives and Outcomes

Permit modifications respond to various business needs by revising the permit to ensure that the changes are protective of human health and the environment. Changes to the facility operations and related permit modifications can have the effect of improving a facility's operational efficiency, economic development, as well as allowing for creative problem solving and other aspects such as facility management. Some modifications are initiated due to changing environmental requirements. (See the case studies in Part 2 for specific examples.)

Reasons for Permit Modification Requests

- **Operational efficiency:** Permit modifications allow for development and implementation of new technologies and systems while ensuring protective standards. These changes can improve the efficiency of facility operations, which lead to ancillary effects such as operational cost savings or environmental improvement. For example, by expanding its waste management capacity, a facility can reduce transportation costs and corresponding environmental impacts associated with off-site treatment or disposal. Other changes, such as the addition of new treatment technologies or redesign of storage areas, may lead to operational efficiencies at the facility.

- **Economic development:** Companies may request permit modifications in order to incorporate changes needed to grow and expand their business and waste management infrastructure. For example, permit modifications allow companies to install new units for treating or disposing of hazardous waste or to incorporate new waste management processes that allow companies to treat new waste streams. Timely permit modifications ensure that these changes maintain protection of human health and the environment while allowing companies to keep pace with changes in the marketplace and assure their competitiveness.

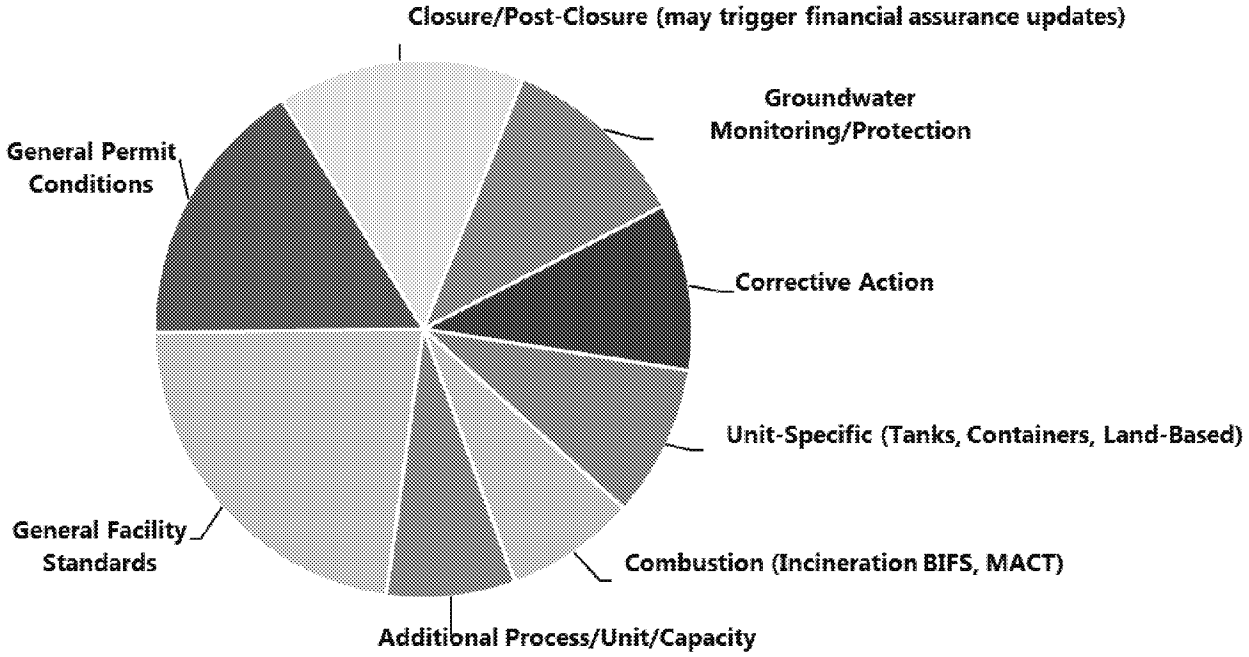
- **Environmental improvement:** Permit modifications can lead to environmental improvements in multiple ways. Many modifications facilitate cleanup of contaminated soil or groundwater, which reduces risks to human health and the environment. Other modifications allow facilities to increase the recycling or reuse of materials, thus reducing corresponding waste streams. Some changes are undertaken to improve technological or operational efficiency; these can have ancillary environmental benefits, such as reductions in fossil fuel use and greenhouse gas emissions. Permit modifications may also be triggered by changes to environmental regulations (e.g., new air quality standards may require removal of hazardous pollutants from stack emissions, creating a new waste stream that must be managed).

- **Other:** Permit modifications can also be made in response to general improvements in waste management. Common modifications that can improve waste management practices are updates to waste analysis plans or contingency plans for emergency response actions. Administrative changes, such as revisions to facility contact information, or changes to facility ownership are addressed through modifications.

The issues addressed by permit modifications range from minor administrative changes to significant physical changes at a facility.

Exhibit 1 summarizes the distribution of permit modification approvals for 2011 through 2013. As shown in the graphic, changes to general facility standards, general permit conditions, closure/post-closure (which may trigger financial assurance updates[5]), groundwater monitoring/protection, and corrective action represented a large percentage of all permit modification approvals.[6] The modifications cover operating and post-closure permits. A growing number of modifications are for permits that have been continued in order to address facility-wide corrective action after the TSD units are clean closed. The case studies presented in Part 2 of this report describe the kinds of permit modifications in more detail.

Exhibit 1. General Distribution of Permit Modification Approvals by Type (2011-2013)



Note: EPA calculated this distribution using data from the RCRAInfo database where the modification type was identified in the code or the notes for "other modifications." This does not reflect data from all states. Modifications were not required to be tracked in RCRAInfo in this timeframe. (Sample size: 788 permit modifications out of 2479). See details about RCRAInfo Data in Appendix 2.

C. Permit Maintenance Activities

With the vast majority of the hazardous waste management facilities already permitted, permit maintenance, including modifications, account for most of the permitting workload. The maintenance of permits involves processing and approval of modifications, as well as other oversight activities, such as compliance inspections, responding to the public's calls and questions, and review of routine facility reports. Below are examples of permit maintenance activities that occur throughout the life of the permit.

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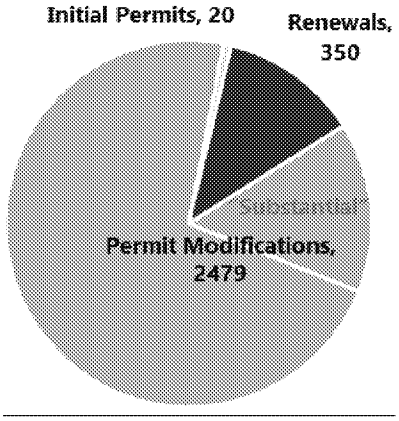
[5] Although changes to the closure and post-closure plan typically require updates to a facility's financial assurance, regular maintenance of a facility's financial assurance alone does not generally trigger a permit modification. Maintenance of financial assurance includes annual verification of the financial documents submitted by facilities to ensure the amount is adjusted for inflation and the mechanism is still valid and, when necessary, additional steps to ensure coverage remains in place (e.g., response to instrument provider cancellation requests).

[6] This pie chart is intended to show the *general ratio* of activities involved in the various permit modification approvals, not specific amounts or percentages. The state data that could be relied on for this assessment is only 32% of the national total. It does not include data for all states, nor does it include approvals entered where the activity was not specified in the code type or in the notes. See Appendix 2 for additional details. State ratios vary considerably, for example, Texas has a larger percentage of combustion modifications.

Examples of Permit Maintenance:

- **Modification Activities**
  - Initial discussion with facility representative regarding details of planned facility changes and determination of modification class
  - Review/approval of modification requests and associated deliverables required under the regulations or schedules of compliance in the permit and conduct site visits
  - Conduct public participation activities, such as solicitation of public comment and public meetings or hearings (may be adjudicated)
  - Conduct environmental assessments
  - Compile environmental impact statements
  - Perform other required procedural activities, see the process outlined in Exhibit 5

- **Other Permit Oversight and Maintenance Activities**
  - Review/approval of documents and routine reports required under the regulations or schedules of compliance in the permit (e.g., semi-annual/annual groundwater monitoring reports)
  - Conduct compliance inspections
  - Review of facility demonstrations of financial assurance
  - Respond to citizen/media calls
  - Facility management planning
  - Data management
  - Respond to internal inquiries and file review requests
  - Permit billing (cost recovery) activities
  - Participate in meetings, phone calls, and site visits



As the majority of facilities on the permitting track now have permits in place, the permitting workload is now shifting to modifications.

Relative Workload in 2011 thru 2013:

- There are about seven times more permit modifications than renewals.
- Permit modifications and renewals outnumber new issuances at a rate of 141 - 1.
- 1,429 facilities are permitted and appear to be in the workload for modifications and renewals.
- Generally, 17% of the modifications require "substantial" changes to the permit and these can be comparable to initial permit issuance or renewal with regard to complexity, workload, and public participation requirements.

See Section III.B for details on the data.

The modifications can trigger a great deal of unanticipated work. For example, the transfer of facility ownership is a Class 1 modification, usually the simplest modification to process, but it also involves changes in the financial assurance mechanisms (e.g., trust fund, insurance policy, or letter of credit), granting a release for previous owner, and other responsibilities in addition to the actual modifications to the permit. Other activities can require special technical expertise. Activities, such as environmental assessments and impact statements, could be done in concert with efforts to "green" the permit (see Part 2 Section B). In summary, permit maintenance work is more than just making specific edits to permit criteria; the permit review must assess the overall waste management practices of the facility in order to make sure the change in the permitted activity is in compliance with the regulations.

II. The Untold Story

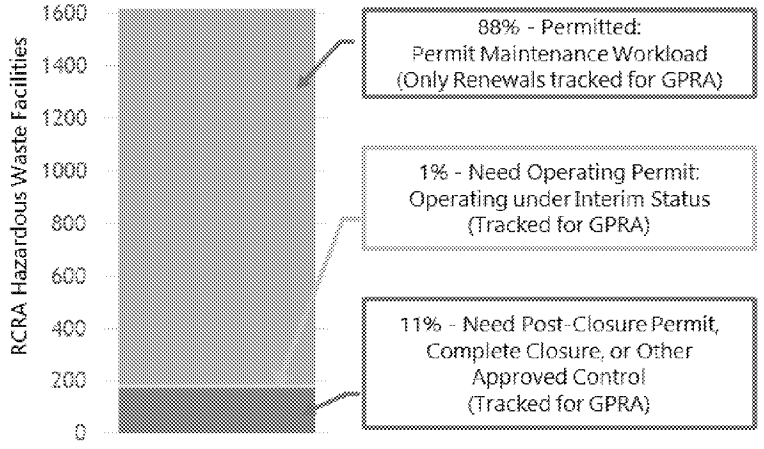
A. Why Modifications are an Untold Story

The first RCRA permit deadlines came with the 1984 Hazardous and Solid Waste Amendment (to RCRA) and issuing permits became a major goal for RCRA programs. For many years, EPA and authorized state agencies have continued to focus on the issuance of new and updated regulatory controls (primarily initial permits and permit renewals) as a core program performance measure. This national performance measure was largely an outgrowth of the Government Performance and Results Act (GPRA) of 1993, which mandated that federal agencies establish performance measures to gauge the success of their programs.

Today, RCRA permits have been issued to the vast majority of facilities in the GPRA workload, and many of those permits have been reissued. Exhibit 2 shows the current related permitting program workloads. EPA's RCRA program continues to establish national goals for initial controls (permit issuance, clean closure, or other controls in place) and renewals.

A primary purpose of RCRA permitting requirements is to ensure that ongoing hazardous waste management activities are protective and do not result in cleanup obligations; however, the preventive nature of the permitting program is difficult to track as a performance measure. Permitting and permit maintenance are nonetheless ongoing and effective tools in ensuring that hazardous wastes are not mismanaged. Whereas the Agency has been able to successfully track permit issuance and renewal since they are "predictable" tasks, permit modifications have not been included in core program performance measures or national goals for very practical reasons. The frequency, timing, and complexity of permit

Exhibit 2. RCRA Permitting Workloads in 2015



Permitting Workloads in 2015

Permitted (88%)

1429 - The "Permit Maintenance Workload" contains the facilities that are permitted and are expected to need permit modifications and other maintenance. The facilities that would also eventually need permit renewals are included in this set. At the current rate of renewals, about 300 facilities (~21%) are administratively continued past their permit expiration date and need renewals. Renewals are tracked for GPRA.

Never Permitted; Tracked for GPRA and Need Initial Controls (12%)

16 – Need Operating Permit: Facilities have at least one unit that is "operating, actively managing RCRA hazardous waste" and is under interim status standards.

172 – Not Operating: Need post-closure permit, completion of closure obligations, or other approved controls in place. The majority of these facilities are on track for clean closure (and/or a corrective action order), but some will be issued post-closure permits.

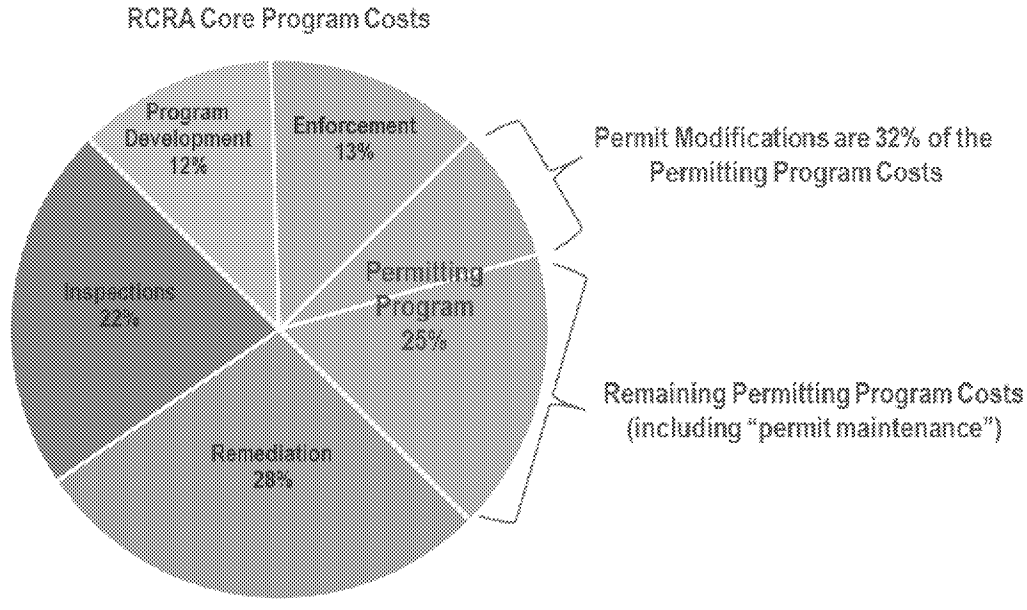
Note: There are additional facilities that are not shown in the graph totals above and are less of a priority (not tracked for GPRA), but are still under the oversight of the permitting programs.

See Section III.C for the permit maintenance workload criteria and a comparison to other regulated facilities. See Appendix 2 for additional details on this information.

modification requests in any given year is unpredictable, primarily because the majority of these requests are initiated by facilities.

The workload uncertainty keeps the program from projecting the number of modification approvals to be accomplished, but resources nonetheless have to be prioritized and in place in order to address them. Modifications represent a substantial workload for EPA and the authorized states and they should be considered along with the accomplishments tracked in the RCRA core programs. The Association of State and Territorial Solid Waste Management Official's (ASTSWMO's) *State RCRA Subtitle C Core Hazardous Waste Program Implementation Costs Final Report*, published in January 2007, discussed this in detail, emphasizing that an estimated 32 percent of costs to the state authorized hazardous waste permitting program can be attributed to permit modifications (see Exhibit 3). This does not include all permit maintenance activities. The ASTSWMO's report also states: *"In terms of overall State RCRA Core C program costs, permit modifications represent the single most costly activity that States perform."*[7]

Exhibit 3. Relative RCRA Program Costs to States in 2007



Since the 2007 report, more facilities have been issued an initial permit and the permit renewal backlog is diminishing, thus shifting *more of the work towards maintenance* (including modifications).

The proportion of State Core RCRA Subtitle C program workloads and associated costs devoted to permit modifications are now understood but, to date, there has been little discussion of the economic, environmental, and regulatory benefits of permit modifications and these are often not fully considered during annual planning and funding negotiations.

[7] ASTSWMO's full report is available at: http://www.astswmo.org/Files/Policies_and_Publications/Hazardous_Waste/Final%20Report%20-%20RCRA%20Subtitle%20C%20Core%20Project.pdf

B. Why an Efficient Permit Modification Process is Necessary

Speed of business has accelerated. The hazardous waste landscape has evolved considerably since the regulations were established in the early 1980s. Since then, personal computer use and electronic communications are ubiquitous, innovations in information technology have exploded, and the pace of globalization and trade has quickened. As business needs accelerate, EPA and the states have sought more efficient ways to review permit modifications in order to ensure permits remain protective of human health and the environment without encumbering business needs. Tools such as model permits, templates, regulatory guidance, and training allow regulatory authorities to issue hazardous waste modifications that are protective of the environment and responsive to business.

Urgent Changes. To stay competitive, owners and operators must respond faster to changes in their marketplace. They must be at the ready to implement changes that will reduce costs, expand infrastructure, and develop new markets. Timely permit modifications are critical for responding to these needs in a manner that is protective of human health and the environment while avoiding delays in time-critical decisions.

Permit modifications that enable businesses to implement changes to improve protectiveness, such as changes to increase recycling, minimize waste, and improve cleanup of sites are paramount to meeting the intent of RCRA. For example, the RCRA corrective action program has focused on increasing progress toward constructing cleanup remedies. Timely modification of a permit to incorporate a cleanup remedy decision contributes to more prompt reduction of current and future risks from contamination. It is vital that permit modifications are processed efficiently and effectively to avoid costs to the environment as well as to industry.

Federal and state regulators must carefully review permit modifications to ensure the action is in compliance with regulatory requirements and is protective of human health and the environment. Regulators must also provide adequate opportunity for the public to have a voice regarding decisions that potentially affect their community (i.e., a change in treatment may trigger a need for storage that the facility did not anticipate). When the regulatory agency is able to quickly shift priorities and resources, these activities can be implemented expeditiously, and thus better align with the facility's business-related schedules and deadlines, as well as bring environmental protections into place in a timely manner.

Permitting Resources Needed to Respond to the Shift: In the past, RCRA permitting programs have primarily focused on issuing permits, but with the majority of the hazardous waste management facilities already permitted, permit maintenance and modifications account for most of the permitting workload. In addition, businesses have come to expect timely attention and service to their permit-related applications, especially in light of the permitting fees they pay in many states, yet at the same time federal and state hazardous waste resources devoted to providing such service have diminished.

The first step in addressing these issues is bringing attention to the issue. This issue was first highlighted in ASTSWMO's 2007 RCRA Core Report. This 2007 Report provided an accounting of workloads in broad programmatic areas within the hazardous waste realm and clearly identified the resources devoted to new permit issuance/reissuance versus other permit related activities including permit modifications. One conclusion of this analysis was that there was (and continues to be) a major shift in program emphasis since the early 1980s to permit modifications/maintenance in permit-related areas. As a result of the shift, significant federal and state program resources have been diverted to work in these areas, which is supported by the statistics contained in the ASTSWMO report and this paper.

III. Permit Modifications: Status and Statistics

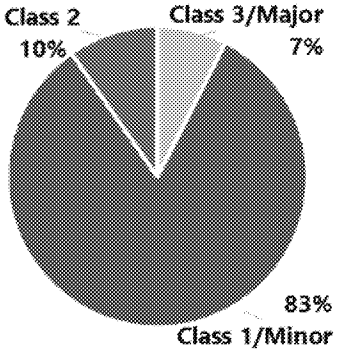
A. Permit Modification Process and Timeframes

The procedures for making changes to a permit will vary depending on whether the permitting authority or the permittee is initiating the change.

There are three basic situations that involve changes to a permit after issuance/reissuance:

- Permit modification at the request of the permittee (see 40 CFR 270.42, the most common)
  - Class 1, Class 2, and Class 3 described below
- Permit modification at the request of the State/EPA (see 40 CFR 270.41, this is very rare)
  - Modification of the permit
  - Revocation and reissuance of the permit
- Termination of the permit (see 40 CFR 270.43, not a "modification")

RCRA permit modifications are organized into three classes.[8, 9]



See Section III.B for details about the data.

Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operations. These changes do not substantially alter the conditions in the initial permit or reduce the facility's ability to protect human health and the environment. Some Class 1 modifications (such as a change in the emergency contacts) do not require prior approval by EPA or the authorized state-permitting agency. However, most changes require prior approval. Class 1's are typically the easiest to process. Most are simple changes to the permit, although some can be rather difficult to address, such as a change in ownership, which triggers financial assurance changes.

- **Expected Staff Time to Address: 2-25 hours** (100 hours or more for ownership changes especially with complex facilities that have multiple owners under one permit.)

Class 2 modifications address changes needed to maintain safety or regulatory compliance at the facility. In particular, Class 2 modifications apply when facility owners and operators need to respond to common variations in the types and quantities of waste managed by the facility, technological advancements, and new regulatory requirements, where those changes can be made without substantially changing the design specifications or management practices in the permit.

- **Expected Staff Time to Address: 41-119 hours** (up to 340 hours in rare cases)

Class 3 modifications are major changes that substantially alter the facility or its operations. For example, changes to waste management practices to accommodate new types of waste, substantial increases in storage capacity, or changes to the facility's groundwater monitoring program would require a Class 3 modification. Modifications in this classification have a wide range of complexity and typically include the more complicated permit changes.

- **Expected Staff Time to Address: 59-640 hours** (up to 1850 hours in rare cases)

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[8] Several states (AL, FL, ME, MN, NY, OH, and SC) use the original "major or minor" permit modification categories in lieu of the three class system introduced in a 1988 rule (53 FR 37912).

[9] The "Expected Staff Time" ranges come from the 2007 ASTSWMO Core report. See also background in Appendix 2.

Exhibit 4 provides examples of the types of changes covered by each modification classification.

Exhibit 4. Examples of Permit Modification Classifications

Class 1	Class 2	Class 3
Administrative and informational changes	Changes in frequency or content of inspection schedules	Creation of a new landfill as part of closure
Correction of typographical errors	Minor changes to corrective action	Addition of corrective action remedy
Changes in names, addresses, and phone numbers of emergency coordinators	Changes to facility training plan that affect the type or amount of employee training	Addition of compliance monitoring to groundwater monitoring program
Changes to comply with new regulations for analytical quality control plans, or waste sampling and analysis methods	Changes in number, location, depth, or design of groundwater monitoring wells	Addition of temporary incinerator for closure activities
Note: Permit modifications are classified in more detail in 40 CFR 270.42, Appendix I, which is described in "Modification Types Based on Regulatory Descriptions" in Appendix 1 of this report.		

The process for modifying a permit differs depending on the classification of the modification. For Class 2 and Class 3 modifications, the modification process follows a series of defined steps similar to the initial permit application process. In contrast, the administrative requirements for Class 1 modifications are comparatively minor. Class 2 and Class 3 modifications require the facility to follow several steps to encourage public participation. These steps include publishing a notice of the request for permit modification in a public newspaper; holding a public meeting; and allowing a 60-day public comment period on the requested modification. Exhibit 4 illustrates the modification process for all three Classes.

Typical timeframes for completion of modifications are based on the time needed for public comment, complexity of the modification request, class type, and availability of agency staff resources. The permitting agency may need additional information from the facility in order to make a decision and these interactions can be lengthy. Denials are relatively rare since provisions allow for revisions and extensions. The permitting agency may also determine that the class should be higher or lower (or deciding if a Class 1 needs prior approval) based on the change being made.

Agency-initiated modifications generally require a similar process to issuing a full permit (these are not as common as facility initiated modifications).

Temporary authorizations, as described in 40 CFR 270.42(e), can be requested for the following objectives:

- Facilitate timely implementation of closure or corrective action
- Prevent disruption of ongoing waste management activities
- Respond to sudden changes in the types or quantities of waste managed
- Allow specific treatment or storage in order to comply with land disposal restrictions
- Facilitate other changes to protect human health and the environment

Temporary authorizations allow the changes to a permitted activity to take affect sooner than the regular modification process allows. If the changed activity must continue after expiration of the temporary authorization, a regular modification process would still be required. Temporary authorizations are allowed for modifications that would normally be included in a Class 2 or 3 modification request. A creation of a temporary storage unit to store hazardous waste prior to treatment or disposal would be an example of a situation where the use of a temporary authorization would be appropriate.

Public input can also help permittees or prospective applicants make better decisions during the process. Public interest tends to be high for facilities receiving their initial permit and may decline over the lifespan of a permit, particularly at facilities that have modified their permit many times (sometimes over 100 changes). Effective and meaningful public participation remains critical for informing decisions made by the facility managers as well as the regulating agency.

See Exhibit 5 for the regulatory public participation requirements based on the permit modification class. The main required components of public participation for permit modifications are:

- Notification of the facility's modification request sent to mailing list;
- Publication in local paper and modification request made available to public (Class 2 and 3);
- 60-day public comment period for the facility's modification request (Class 2 and Class 3);
- Public meeting hosted by the facility (Class 2 and Class 3);
- Notification of the decision;
- 45-day public comment on the draft permit conditions (Class 3); and
- Public hearing (if requested for Class 3).

In many cases, expanded public participation efforts (such as use of modern technology) are recommended.[10] For example, greater outreach may be needed for modifications that involve potential off-site impacts, such as air emissions or cleanup of releases that have migrated off-site. Additionally, greater outreach may be warranted to more effectively support communities when the facility is located near disadvantaged areas or when facilities are clustered and thus may add to cumulative potential impacts at adjacent communities.

Staff time needed to address permit modifications can vary greatly. A simple modification can take as little as several hours to administer and approve, while more complex modifications may take up to 1,850 staff hours to assess and approve.[11] Exhibit 5 demonstrates the steps involved in reviewing and approving each class of modification request.

EPA regulations specify that Class 2 modifications generally are to be concluded within 3-4 months. By contrast, EPA regulations do not specify a deadline for completion of Class 3 modifications. Class 3's tend to take more time due to the complexity of the issues in addition to the 105 days total of public review.

Case-Specific Issues

In addition to the process steps involved in reviewing permit modifications, other factors can greatly add to the processing time:

- Unanticipated communication between the state and the facility due to incomplete applications.
- Additional activities needed in order to follow the prescribed regulatory steps such as a monthly follow-up with required monitoring reports.
- Complexities, such as those resulting from change of ownership and parceling of property.
- Assessment as to which class of permit modification is appropriate.
- Multiple modifications in different phases of the process for the same facility.

Please see the case studies in Part 2, which help illustrate these issues.

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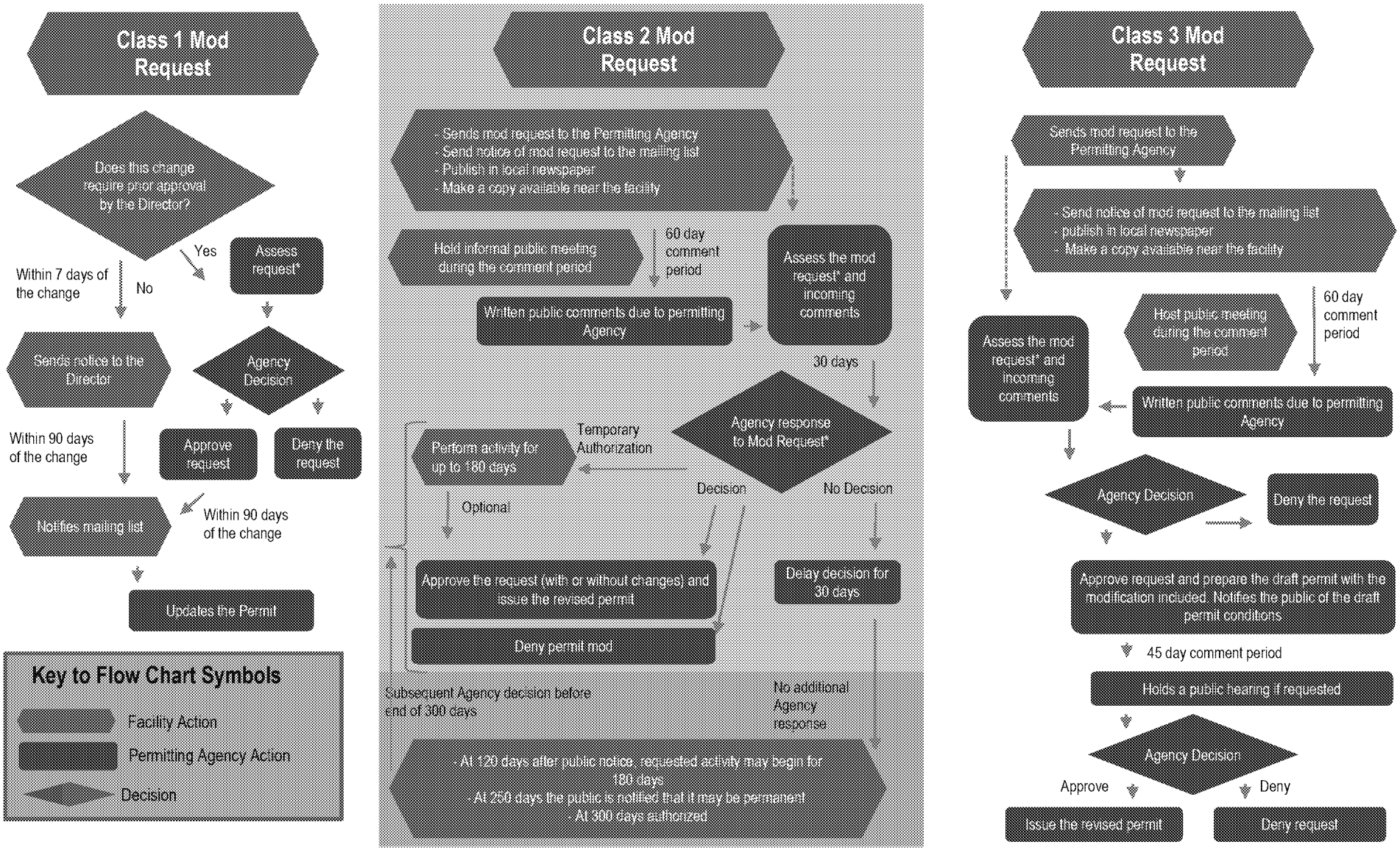
[10] EPA is currently updating the 1996 RCRA Public Participation Manual, which will provide further guidance regarding expanded public participation. See the website (http://www2.epa.gov/hwpermitting) for the current manual and the one to be revised.

[11] The high end of the staff time it can take to address permit modifications (1,850 hours) is from Appendix I of the 2007 ASTSWMO Core report (under "Estimation of Work Hours" page 39).

Exhibit 5. Permit Modification (Mod) Process for each Class



See 40 CFR 270.42 for the full federal regulations for permittee mod requests. State regulations may vary. Several states have not adopted the regulations for the three class structure, and use the preexisting Major and Minor Mod structure.
* The permitting Agency may need additional information from the facility in order to make a decision and these interactions can be lengthy. The Permitting Agency may also determine that the class should be higher or lower (or decide if a Class 1 needs prior approval) based on the change being made. The separate temporary authorization process can be used for Class 2 or 3 as appropriate (although not referenced in the Class 3 process above).

B. Permit Modification Statistics

This section describes the quantity of permit modification approvals granted during 2011 through 2013 and relates it to additional permitting information.

Exhibit 6. Total Permit Modification Approvals 2011 through 2013

From 2011 through 2013, regulatory officials approved 2,479 permit modifications. On average, 826 permit modifications were approved each year over the three-year period. Annual breakdown: 794 permit modifications were approved in 2011; 888 in 2012; and 797 in 2013. This data set does not count permit modifications that were still being assessed at the end of the year and does not count those that were denied or withdrawn. Exhibit 6 shows the relative number by type of these approvals by class and year.

According to a review of a smaller subset of the states that regularly track approvals in EPA's national database, the 2011 through 2013 tallies appear to be a little lower than the average rate. The decrease in number of modification approvals during the 2011-2013 period may coincide with nationwide economic factors, which influenced the need for changes and permit reissuances at permitted facilities.

Data used in the analysis. The permitting programs for each state record the permit modifications that are approved annually.[12] EPA collected these permit modification data for years 2011 through 2013 from state and regional sources for 39 states, the District of Columbia, and three U.S. territories. EPA obtained data for an additional eight states[13] and Puerto Rico from the Agency's national database when it was identified as the best and most accurate resource. Data for the remaining states (Maryland, New Jersey, and Pennsylvania) were statistically extrapolated based on permitting data.[14] Although there may be gaps in the data due to differences in tracking practices, and underreporting of Class 1 permit modifications, EPA considers these data to be the best available nationally.

Class 1 (or Minor) permit modifications were the most common, representing 83 percent of all approved permit modifications. Class 1 modifications are generally the least substantial type of modification. However, as previously described, in some cases they can be complex and lengthy to process.

Class 2 modifications accounted for approximately 10 percent of total permit modification approvals.

Class 3 modifications impose the greatest burden on regulators and permittees, but account for a significantly smaller percentage (7 percent) of total permit modification approvals. See Exhibit 7 for the

[12] Per 40 CFR 270.42(i), each environmental program Director must maintain a list of all approved modifications and must publish a notice once a year in a state-wide newspaper that the updated list is available for review.

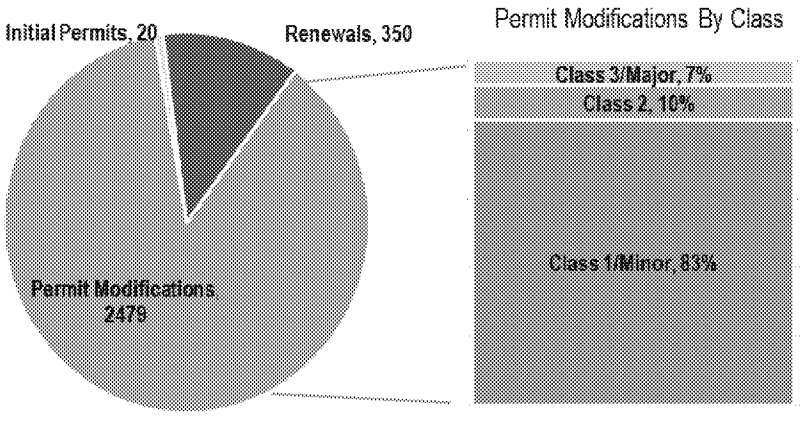
[13] EPA used RCRAInfo data for the following states: Alabama, Colorado, Georgia, Illinois, Indiana, Nebraska, New York, and South Carolina. Additional states use RCRAInfo to track modifications, but they provided tallies.

[14] Estimates of permit modifications in Maryland, New Jersey, and Pennsylvania were extrapolated based on the national average of permit modifications per permitted facilities. See Appendix 2 for additional details.

distribution of permit modifications by class and for the relationship to permit issuance.[15] Note that this does not include all permit maintenance activities.

Several states (Alabama, Florida, Maine, Minnesota, New York, Ohio, and South Carolina) use the original "major or minor" permit modification categories in lieu of the three class system introduced in a 1988 rule (53 FR 37912). Minor modifications were counted as Class 1's and major modification were counted as Class 3's for the national tally.

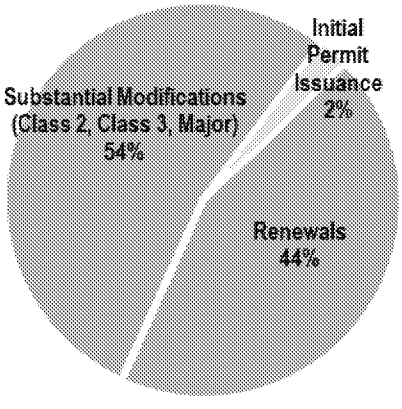
Exhibit 7. Permitting Actions 2011 Through 2013



Permits have different conditions for facilities that are operating or are in post-closure. Permit modifications can make changes for operating or post-closure standards, but there are typically fewer changes needed for facilities that are in post-closure.

The data also show that the number of permit modifications varies by state. On average, 17 permit modifications were approved per state/territory per year between 2011 and 2013.[16] However, the distribution around this average is wide.

Exhibit 8. Substantial Permit Actions



Permit modifications impose a substantial burden on regulators and permittees relative to permit issuance. The initial permits and reissuances/renewals in 2011 through 2013 were calculated from RCRAInfo data. The data shows that there are far more modifications than permit issuances during this timeframe.

Class 3 modifications (7%) are comparable to initial permit issuance or renewal with regard to public participation requirements. Similarly, some of the substantial (Class 2, 3, Major) permit modifications (17%) can be comparable to permit issuance with regard to the complexity and workload. See Exhibit 8 for the percent of substantial modification approvals (Class 2, 3, Major), initial permits issuance, and permit renewals.

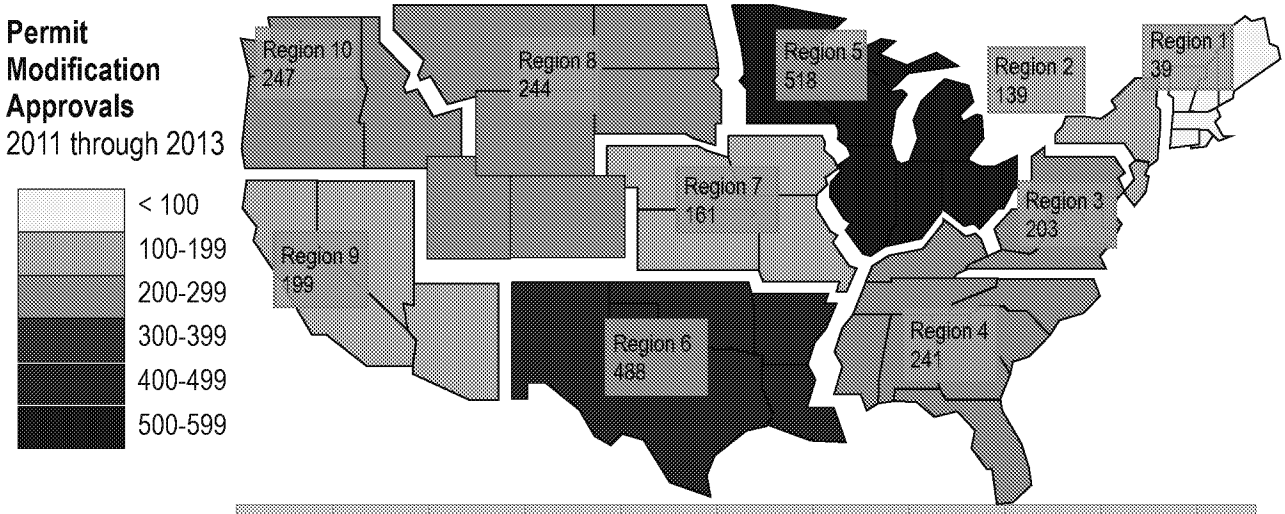
See Appendix 2 for additional details and background information about RCRAInfo and the data.

[15] EPA identified initial permits from RCRAInfo data for the permit determinations that occurred during 2011 through 2013 at a facility with no prior permit determination. The renewals are calculated from the permit issuances 2011 through 2013 that followed an initial permit issuance (prior to 2011).

[16] The calculation of this number does not include data from the District of Columbia, U.S. territories, or any state with no modifications recorded during that timeframe.

Many factors contribute to the differences in modification numbers among states. For example, some states have five-year permit terms versus ten-year permit terms. There is a greater likelihood that the major changes will be incorporated in the permit reissuance if a permit is reissued at shorter intervals (as compared to ten-year intervals). Permit fees on modifications can also sway business decisions regarding permit modifications (for example, the facility operators may delay changes that trigger permit modifications until the permit is renewed). States with more permitted facilities would be expected to have more modifications, but not all permitted facilities modify their permits at the same rate (for example, permitted facilities in post-closure care typically have fewer modifications on average). Exhibit 9 shows the number of permit modifications by EPA region.[17]

Exhibit 9. Permit Modification Approvals by Region (2011-2013)



	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Total
Number of Modifications 2011-2013	39	139	203	241	518	488	161	244	199	247	2479
Permitted Facilities	54	97	134	365	195	262	86	58	134	44	1429
Modifications per Permitted Facilities 2011-2013	0.7	1.4	1.5	0.7	2.7	1.9	1.9	4.2	1.5	5.6	1.7
Annual Modifications Per Permitted Facilities	0.2	0.5	0.5	0.2	0.9	0.6	0.6	1.4	0.5	1.9	0.6

1,429 facilities were permitted as of February 6, 2014. Either the included facilities had an operating permit or post-closure permit (or units with both) based on their specified legal status codes. Facilities were omitted if their operating status codes indicated they would not be eligible for a permit modification. See the criteria in Section III.C.

There is a large range of annual permit modifications at individual facilities. Many states had average numbers of modifications per facility well above or below the national averages. In some cases, a facility may require multiple modifications in a single year; conversely some facilities may tend to save their changes and integrate when the permit is renewed.

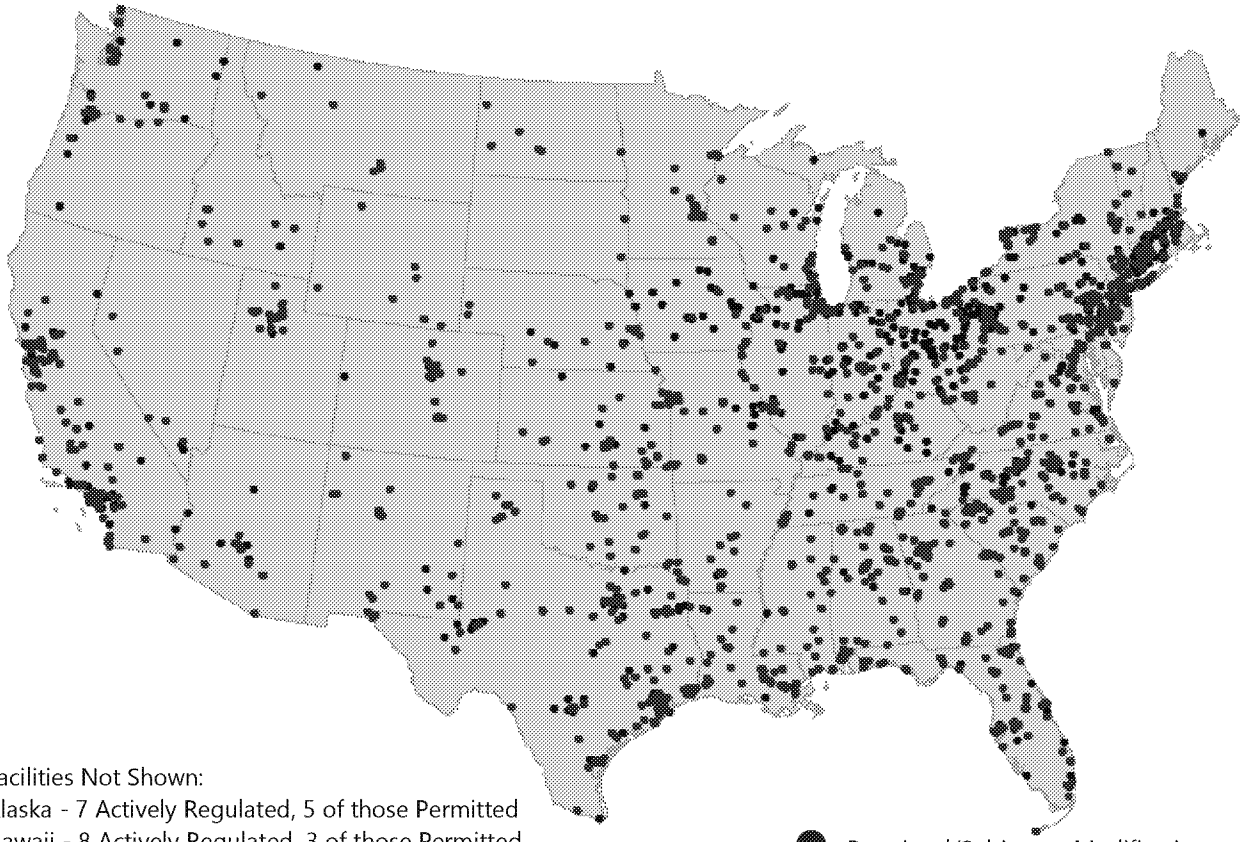
[17] States with fewer permitted facilities may experience more variation in the number of permit modification approvals per year. This represents an additional limitation of the three-year sample of data collected from RCRAInfo.

C. Location of Permitted Facilities with Potential for Modifications

The majority of the "actively regulated" hazardous waste treatment, storage and disposal (TSD) facilities have been permitted.

Exhibit 10 maps the universe of actively regulated TSD facilities. All of the facilities identified below (red and black dots) are subject to the regulations for standards for owners and operators of hazardous waste treatment storage, and disposal facilities and are described in more detail in Appendix 2. The red dots identify facilities that are permitted. Thus, the map shows 1,429 permitted facilities that are expected to eventually need permit maintenance/modifications (this number is calculated for the purposes of this report).[18] The black dots identify actively regulated facilities that are not permitted, such as facilities that are going through closure, but are not yet clean closed.

Exhibit 10. Facilities Permitted and Subject to Modifications, Versus Other Regulated Facilities



Facilities Not Shown:
Alaska - 7 Actively Regulated, 5 of those Permitted
Hawaii - 8 Actively Regulated, 3 of those Permitted
Guam - 5 Actively Regulated, 3 of those Permitted
Puerto Rico - 19 Actively Regulated, 11 of those Permitted

- Permitted/Subject to Modifications
- Actively Regulated, Subject to TSD Standards, but Not Permitted

[18] According to RCRAInfo, 1,429 facilities (6,245 units) have at least one unit that is permitted (according to the legal status code and not terminated) and does not include facilities where all units are also coded as clean-closed, referred to CERCLA, completed post-closure care, or are coded as conducting activities that do not require a permit (according to operating status codes). If the facilities with those operating statuses were not removed from the count, this would add 400 additional permitted facilities (although generally not active, these permits may require some permit maintenance). Legal and operating status code data as of 10-30-14.

IV. Concluding Points

As the majority of facilities that are treating, storing, or disposing of hazardous waste have been issued initial permits under RCRA, the bulk of permitting activity has now *shifted towards maintenance* of those permits. Permitting activity is now geared towards responding to business needs and changes in facility operations while ensuring that the permitted conditions continue to be protective and prevent release. It is critical to keep up with the permit modification workload in order to enable improved business operations, technological upgrades, and expansions while maintaining protection of the environment.

Because RCRA permit modifications are not tracked as part of the Agency's Strategic Plan, this substantial and vital work has gone largely unrecognized. This report thus depicts for the first time the national perspective of permit modification work conducted throughout the country. The unpredictable nature of permit modification complexity, frequency, and timing makes workload balancing and resource allocation difficult to manage. While the workload for the number of modification requests cannot be projected accurately for set goals, the workload is now being recognized in other ways. EPA believes that improved characterization and quantification of permit modifications will enable greater understanding of the importance of effective RCRA programs for EPA, the state agencies, the regulated community, and the public.

In addition, better data and understanding of the permit modification work may uncover barriers, issues, and opportunities for improvement in the permit modification process. EPA remains open to learning how the RCRA permit modification process could be made more efficient and protective.

PART 2
PERMIT MODIFICATION CASE STUDIES

While ensuring protection of human health and the environment is the underlying objective for the permitting standards, there are often business reasons – as well as environmental reasons – that compel companies to request changes to their permits. The following case studies describe real-world examples for the types of changes at facilities that require permit modifications across the country. They also offer a glimpse of the content and process for different permit modifications, while illustrating how changes to permits continue to ensure that proper safeguards remain in place and allow companies to respond to changing business needs or pursue innovative approaches to responsible hazardous waste management.

Permit modifications vary greatly in terms of purpose and complexity. The permit modification case studies are sorted into four broad categories of changes based on their primary outcome: A. Responding to Changing Business Practices or Operations Responding to Business Needs; B. Improving Hazardous Waste Management; C. Ensuring Long-Term Protection; and D. Keeping Permits Up to Date. The table below shows an index for the case studies and their main outcomes. The following sections describe each case study category in more detail.

The examples show a broad range of permit modifications, from very significant actions to reoccurring administrative updates.

Overview of the Permit Modification Case Studies in these Sections

INDEX: Case Study Categories
A. Responding to Changing Business Practices or Operations
1. Improvements in Technological Efficiency
2. Economic Development and New Waste Handling Capacity
3. Ownership Changes
B. Improving Hazardous Waste Management
1. Resource Conservation
2. Reduced Risk of Release and Improved Safety
3. Replacement of Damaged or Aging Equipment
C. Ensuring Long-Term Protection
Closure, Post-Closure Care and Corrective Action
D. Keeping Permits Up to Date
1. Emergency Response
2. Updates to Permit Standards and Conditions
3. Administrative Updates
E. Modifications over the "Life of a Permit"

A. Responding to Changing Business Practices or Operations

INDEX A. Responding to Changing Business Practices or Operations
Case Study Categories
1. Improvements in Technological Efficiency
2. Economic Development and New Waste Handling Capacity
3. Ownership Changes

One common impetus for permit modifications is in response to facilities that want to make changes in their operations due to shifts in the market or other business-related factors. They may plan to adopt more efficient or less costly waste handling procedures, install new technologies, construct new units, change the manufacturing process that results in different wastes managed, use alternate fuel sources, or sell the facility.

As with any permit modifications, *it is the role of the permitting authority to assure that such changes will be protective* of human health and the environment.

Facilities often request these modifications to increase operational efficiency and compliance with permit requirements by adapting to changing conditions and needs. For instance, a permitted remedial system may become less effective over time necessitating a modification of the permit to allow for an improved remedial system. In some cases, remedial systems may be implemented in the midst of a busy production facility and have to allow for compatibility with production operations while maintaining remedial effectiveness.

Replacement of a Monitoring/Withdrawal System with a Barrier Wall

The Axiall Corporation in Lake Charles, Louisiana requested a Class 2 permit modification for the construction of a barrier wall to control horizontal migration of constituents of concern in groundwater into Bayou Verdine, Barge Slip, and the Coon Island Reach to below levels that would cause sediment or surface water to pose an unacceptable risk. This replaces a monitoring and shallow withdrawal system while Axiall continues to operate a Lower Aquitard Containment System. The system will control laterally migrating groundwater until the flow reaches a depth at which it is fully captured by the wells of the Lower Aquitard Containment System. Many technical concerns were raised by the public and were addressed during the modification process. The Louisiana Department of Environmental Quality concluded that the barrier would more effectively control the groundwater flow from the facility to the adjoining water body than the groundwater withdrawal system that was dropping in efficiency.

Outcomes: After the replacement, the overall systems will more efficiently contain the constituents and remove contaminated groundwater at the Lake Charles Chemical Complex in Louisiana. The barrier wall will require less maintenance and operational effort resulting in increased reliability. Fewer resources will be needed to implement this remedy and it will provide greater environmental protection of the surrounding waterbody for long-term care. The public comment process resulted in resolution of certain technical concerns with the approach prior to implementation.

Associated Workload:

- Review/approval of the change request, design plans, construction report, operating and maintenance plan, and annual corrective action reports
- Official public review and comment, and response to comments

A.1. Improvements in Technological Efficiency

After facilities are permitted, they often need to make changes to their waste handling practices in order to stay competitive and to adjust to market demands. In order to make these changes, facilities often need to modify their permits.

Most permitted facilities originally identified their types of equipment and units used to manage hazardous waste in their permit applications in the 1980s. Some of the equipment and processes may now be outdated. Multitudes of technological advances have occurred since the 1980s that can produce environmental benefits (as well as cost savings to the facility).

A number of advances have also been made in the methods to address contamination. See the highlighted Axiall Corp case study for an example of the use of a new barrier wall to control lateral migration. This case study, like many others, also applies to other categories. The changes at Axiall Corp also ensure long-term environmental protection after operations cease (covered in Section C).

New equipment for more efficient waste management

A Clean Harbors facility in North Carolina received temporary authorization (while pursuing a Class 3 permit modification) from the North Carolina Department of Environment and Natural Resources for the installation of a shredder to help separate containers and liquid waste more efficiently, which would in turn offer improved environmental protections. Initially, Clean Harbors requested guidance on installing a new shredder for processing small containers to speed up separation of the liquids and containers in order to improve their waste management practices. The permit writer looked for guidance, consulted counterparts, and found previous EPA determinations that using a shredder was considered treatment in a "miscellaneous unit." The permit writer discussed this with the facility and advised them to submit a permit modification request and to consider the temporary authorization (TA) option for Class 3 modifications. Under 40 CFR 270.42(e)(3)(ii)(E), an allowable objective for issuing a TA is to facilitate changes to protect human health and the environment. The TA request was received, reviewed, and approved. The facility also submitted a permit modification request to add the shredder unit to its hazardous waste management permit.

The shredder unit was installed under the TA. The permit writer and Resident Inspector coordinated a site visit to view the process area and testing of the shredder unit with non-hazardous materials. The permit writer reviewed the requested changes in the permit modification application and requested some clarifications and corrections. Final revisions were submitted by the facility and the permit writer drafted revisions to the permit. The draft permit modification was issued for public comment and a public hearing was held during the 45-day comment period. No comments were received and the final permit modification was issued.

Although the TA process was streamlined relative to the typical Class 3 permit modification process, TA's still require substantial time and effort on the part of the facility and the regulatory agency responsible for review and approval.

Outcomes:

- The facility reduced operating costs with a more efficient process of separating waste from the containers.
- The TA process allowed for quicker implementation of the proposed modification.
- Coordination and technical expertise from the state permitting authority helped the facility

understand how the TA and modification processes could support the facility's desire to improve its waste management practices in a timely manner while ensuring that the new technique would continue to be protective of human health and the environment.

Associated Workload:
- Review/approval of the TA and the modification request. (No comments received).
- Repeated discussions with the facility about the appropriate calculations and appropriate type of modification.
- Public notice and preparation for/participation in public hearing.

Alternative fuel for a cement kiln calciner

Lone Star Industries, Inc. in Cape Girardeau, Missouri, manufactures Portland cement, the active ingredient in concrete. The facility requested a Class 3 permit modification from the Missouri Department of Natural Resources for a new technological solution that would allow it to replace a fossil fuel (coal) with an alternate (hazardous waste) fuel in the facility's calciner, aka indirect kiln. As part of the permit modification process, Lone Star first had to demonstrate the ability of the hazardous waste fuel to meet air emissions standards. The modification request also included updates to the facility's waste codes and a proposal to add two additional railcars and associated storage tanks. This modification enhances Lone Star's ability to meet changing market demands.

The changes at Lone Star also result in resource conservation, which is covered in Section "B. Improving Hazardous Waste Management."

Outcomes:
The use of alternate (hazardous waste) fuel in the calciner:
- Reduced long-term facility operating costs with better technological solutions.
- Reduced the amount of hazardous waste that might otherwise be disposed of in favor of beneficial reuse for energy recovery.
- Conserved and reduced the use of fossil fuels (coal).
- Reduced air emissions as the hazardous waste fuels burn "cleaner" than fossil fuels.

Associated Workload:
- Planning and oversight of demonstration test(s) to prove ability to meet emission standards.
- Review/approval of the modification request.
- Assess any comments from the 60 day public comment period on the request, and the 45-day comment on the draft revised permit and public hearing.

A.2. Economic Development and New Waste Handling Capacity

Modification requests by facilities are often in reaction to market changes (i.e., increase/decrease in generation of hazardous wastes or new state/federal hazardous waste). For example, facilities may need additional waste handling capacity, need to treat additional wastes types, need additional units to treat, store, or dispose of wastes, or have other needs in order to meet changing market demands.

Addition of Three New Hazardous Waste Units

The Buick Resource Recycling facility requested a permit modification from the Missouri Department of Natural Resources (DNR) to allow for the construction, operation, closure, and post-closure of a new onsite Subtitle C landfill and two additional hazardous waste containment buildings. This modification was amongst 22 permit modifications that were processed from 2007-2013 as listed on the DNR website: http://dnr.mo.gov/env/hwp/permits/activepa.htm.

The Buick Resource Recycling Facility receives lead-acid batteries and other lead-bearing wastes. The wastes are recycled to recover lead and other trace metals. In addition, the facility recycles sulfuric acid from the batteries and the plastic from the battery cases. Prior to the modification, the facility was comprised of two container storage areas, six miscellaneous treatment units, and five containment buildings. Slag generated from the secondary smelting process was previously treated at the facility to meet land disposal restrictions treatment standards and then hauled off-site to a RCRA Subtitle D (solid waste) landfill for disposal. The contiguous facility property is subject to corrective action. The facility's rotary smelter and blast furnace are currently certified for Missouri resource recovery.

Following approval of the Class 3 Permit modification, the new on-site landfill cells were constructed to RCRA Subtitle C (hazardous waste) standards and put into operation to manage secondary smelting slag and gypsum wastes generated at the facility. These standards included a double liner system, leachate detection/collection systems, a groundwater detection monitoring program, and financial assurance for closure and post-closure care of the landfill.

Outcomes:

- Improved long-term economics and reduced operating costs from the new on-site waste storage/disposal capacity (metals recycling process contained on-site; possible future slag reclamation; cost saving for on-site disposal).
- Reduced potential for off-site contamination by eliminating about 98% of waste leaving the site thus reducing spill risks associated with off-site transportation.
- Improved traffic safety and reduced fossil fuel use/air emissions (about 130,000 gallon reduction in diesel fuel use annually) by having 2,500 fewer trucks leaving the facility on an annual basis.
- On-site management of wastes in compliance with RCRA Subtitle C (hazardous waste) requirements as opposed to previous on-site treatment and transportation on public roads to off-site disposal at RCRA Subtitle D (solid waste) landfill resulting in enhanced environmental protection and future liability protection for the Permittee.

Expansion of facility operations without using new green space

The CHS Inc. Laurel Refinery in Laurel, Montana, submitted a request for a Class 2 permit modification to the Montana Department of Environmental Quality (DEQ) to allow closure of a land treatment unit using risk-based closure standards for soil and groundwater. The facility was able to close the unit and reuse the eight-acre area for structures associated with new Coker and Coker Flare units. Restrictions preventing residential use of the area were placed on the property deed.

The facility worked closely with DEQ to expedite the assessment and construction of the new units. Communication between DEQ and CHS was essential to ensure refinery planning needs and all regulatory requirements were met. Timely reviews of documents submitted in support of the modification request, issuance of an environmental assessment, and DEQ's final decision on the request were critical for planning and final implementation of the refinery expansion.

Outcomes:

- CHS expanded its refinery operations using the footprint of the land treatment unit by demonstrating concentrations of hazardous constituents in soil and groundwater met risk-based standards.
- Use of conservative risk-based closure standards and restrictive land use controls can allow for appropriate reuse that is protective of human health and the environment.

Associated Workload:

- Technical review and approval of documents supporting the modification request, closure plan, and closure report and certification for the land treatment unit.
- Development and issuance of environmental assessment for public comment.
- Issuance of final modification determination after consideration of all public comment.

New refinery process unit

Phillips 66 Company had a need for a new refinery process unit. They submitted a Class 3 permit modification request to the Montana Department of Environmental Quality (DEQ) for removal of an asphalt cap on a closed surface impoundment at the Phillips 66 Billings Refinery in Billings, Montana, in order to install a new refinery process unit at that location. Removal of the cap was necessary for remediation and removal of contaminated soil and hazardous waste. All wastes and contaminated vadose zone soils were removed, allowing use of the space for a new refinery process unit. Removal of the contaminated soil and waste reduced the risk of future contaminant exposure to industrial workers and potential leaching of hazardous constituents to groundwater.

Outcomes:

- The subject area was remediated and was able to be reused.
- Environmental protection was enhanced.

Expansion of treatment capacity for mixed waste

The Perma-Fix Northwest facility in Richland, Washington, requested a Class 3 permit modification from the Washington State Department of Ecology to expand treatment capacity for mixed waste (a waste that contains a hazardous waste component and a radioactive material component) and to install a new evaporation system. The permit modification was to allow for the following: the installation of two new evaporator units, increased tank storage capacity, and storage of mixed waste in tanker trucks. It also clarified language to align the permit with current practices. Further processes would stabilize residue. An older gasification/vitrification system was also to be replaced via the permit modification.

Outcomes:

- The installation of new units and changes in waste handling procedures would have allowed the facility, which provides industrial and nuclear-waste management services, to expand its ability to treat and manage mixed wastes, but this specific upgrade was no longer pursued after the facility was informed of additional assessments needed. The upgrades need to be able to show that they continue to be protective (i.e., demonstrate the effectiveness for treating the wastewater streams).

Associated Workload:

- A great deal of assessment goes into modifications that are not eventually approved. Technical review of documents supporting the modification request led to a determination that the request was incomplete and a notice of incompleteness was issued to Perma-Fix Northwest. The modification was missing a thermal risk assessment work plan, demonstration test, and information on the proposed wastewater streams proposed to be treated in the evaporation systems.
- Perma-Fix requested that the permit modification be rescinded after the letter of incompleteness was issued.

A.3. Ownership Changes

Permitted facilities are often purchased by or merged with other companies. This tends to lead to requests for "urgent" permit modifications for changes of ownership and/or operational control of the facility. In order to ensure that the environment continues to be protected after an ownership or operational control transfer, the permitting agency must ensure that the new owner or operator provides financial assurance in a timely manner and that the amount of financial assurance is sufficient to cover future closure or post-closure at the facility. *This is essential for long-term environmental protection.*

As mentioned in the accompanying case study below, many facilities have difficulty in following the regulatory requirements and time frames to notify the permitting authorities regarding the planned ownership transfers and to have financial assurance. This makes it difficult for permitting authorities to process the information and ensure that the new facility owner or operator is compliant with the applicable regulatory requirements including those related to financial assurance. Permit modifications for changes of ownership or operational control can be relatively straightforward; however, this type of modification can become complicated and lengthy, particularly as compared to other Class 1 type of modifications. Substantial agency resources are often needed to review and approve these types of modifications since, in large part, they typically require submission of information that facilities did not anticipate. Agency enforcement actions may be initiated due to a facility's failure to follow the regulations and/or permit requirements related to changes of ownership or operational control. This further extends the timeline.

In some situations, only parcels of land are sold, not the whole facility. For example, facilities may request permit modifications in order to transfer ownership of portions of property that are part of a RCRA regulated facility but have been fully remediated (or were never contaminated). When land is removed from the jurisdiction of a permit (parceled) via a permit modification, close coordination of permit writers and corrective action (remedial) project managers is needed to ensure that it is appropriate to remove any land from the permit jurisdiction. The preparation to assess the parcel also involves coordination with the facility regarding any additional analyses or actions (e.g., property legal surveys) that need to be conducted relative to the property proposed for parceling.

One state has found in their experience that Class 1 modifications that involve changes in ownership and/or operational control usually take much longer than 100 hours (the high end of ASTSWMO's calculated range previously mentioned), especially with complex facilities that only transfer/sell the active portions but retain portions that require corrective action and post-closure care (all under one permit).[19]

This situation at times requires a new permit for owners/operators that do not already have a permit.

The need for prior financial assurance approval is frequently overlooked in new ownership cases and results in application processing complications and increased timeframes. The workload includes technical review of the financial assurance mechanism and determination that the new operator has provided documentation to show sufficient financial resources to operate and to eventually close the facility in compliance with the permit.

Modifications are further complicated if they involve more than one company that own different parts of the property the property is under one permit.

Complexities in Ownership Change and Financial Assurance

The Detrex Corporation in Charlotte North Carolina transferred facility ownership and environmental liabilities to Trex Properties, LLC. This case study shows how a seemingly simple Class 1 can be complex and require substantial agency resources to review and approve.

When the Detrex Corporation announced its intent to transfer facility ownership and environmental liabilities to Trex Properties LLC, the North Carolina Department of Environment and Natural Resources (NCDENR) reminded Detrex of the requirement to submit a Class 1 permit modification request at least 90 days prior to the transfer. Regardless, the modification request was not received by NCDENR until nearly a month after the property transfer. When the modification request was submitted, it was substantially incomplete; most notably the facility had yet to submit financial assurance for Corrective Action. NCDENR issued a Notice of Deficiency for the modification request, requiring the companies to submit all information required for the transfer and to meet all outstanding compliance obligations before the agency would process the modification.

The modification process in this case spanned five months, in part due to disagreement about the amount of financial assurance required. Because Detrex had not supplied an estimate of corrective action costs as required by NCDENR, the state agency set the financial assurance amount at $1.2 million. Trex requested to supply an engineering affidavit in place of the required corrective action strategic remedy, but NCDENR and the state Attorney General's Office determined that an affidavit would not be sufficient. Ultimately, Trex funded the required $1.2 million, and the permit modification was approved. This Class 1 modification encountered additional complexity, but is too detailed to include.

Outcomes: Although the permit modification process in this case was lengthy and required substantial agency resources, critical compliance issues were addressed before the modification was approved. Ultimately, the permit modification supported long-term environmental protection (by ensuring funding for closure and any needed cleanup of contamination) while also facilitating administrative updates.

Associated Workload:

- Assessment of the liability coverage, legal boundaries, basic facility information, compliance information.
- Development of a full remedial strategy,
- Cost estimation for remediation, and related financial assurance.

[19] Communication with the Waste Permits Division of the Texas Commission on Environmental Quality 10-23-15.

B. Improving Hazardous Waste Management

As hazardous waste management evolves, facilities often need to make changes to better protect the environment while treating, storing, and disposing of hazardous waste. The changes addressed in these permit modifications included the adoption of new methods of environmental protection, waste reduction, resource conservation, construction of onsite units to avoid offsite impacts, reducing risk of release, compliance with environmental standards, and other benefits for environmental protection that reduce risks to human health and the environment. In general, "green" permit modifications not only improve the environment, they may also improve operational efficiencies and economic development in the long run.

INDEX B. Improving Hazardous Waste Management
Case Study Categories
1. Resource Conservation
2. Reduced Risk of Release and Improved Safety
3. Replacement of Damaged or Aging Equipment

B.1. Resource Conservation

One of RCRA's primary objectives is to conserve valuable material and energy resources. There have been many improvements to waste management activities over time that improve efficiency of processes and thus contribute to this goal. In addition, facilities also often find cost savings when employing these types of improvements to their operations.

Operational change to treat hazardous waste-contaminated metal

A hazardous waste burning cement kiln located at a facility in Missouri has a scrap metal waste stream from crushed and shredded drums. Prior to its permit being modified, this was the only waste stream that continued to be sent off-site for disposal as a hazardous waste since there was simply too much hazardous waste residue on the metal for it to be recycled as scrap. The facility initially explored several methods for cleaning the metal to remove enough of the hazardous waste residue so that it could be recycled.

After initial exploration of various metal cleaning methods, the facility requested (and the Missouri Department of Natural Resources approved) a Class 3 Modification to build a gasifier unit in order to clean the metal (gasify the residuals on the metal). This would create gas that the facility could use as supplemental fuel to fire their hazardous waste burning cement kiln and render the metal, after post-gasification rinsing, clean enough that it could be recycled as a non-hazardous material as opposed to being disposed of off-site as a hazardous waste.

The facility adapted the gasifier technology from another industry for this modification and set about constructing and pilot testing the operation. Several technical issues had to be assessed and overcome during the pilot-testing phase. Ultimately, while the process was successful in cleaning the metal to the degree necessary for recycling, the gas production rates and volume of metals that could be processed were not consistent with the original design projections. As a result, this process has not yet been put into full operation and it is unknown if the limitations identified during pilot testing can be overcome to the

extent necessary to support full operation. Nevertheless, this permit modification allowed for research, development, and demonstration of a novel approach to metal decontamination that resulted in an end product that could be recycled and that created supplemental fuel to fire the cement kiln.

Outcomes:

- Encouraged innovation and research, development and demonstrations of a novel approach to cleaning metal so that it could be recycled as metal scrap instead of being sent for off-site disposal as a hazardous waste.
- If technical issues can be overcome, the hazardous waste generation at this facility can be eliminated and large volumes of clean scrap metal can be recycled/put back into productive use.

Associated Workload:

- Technical review and approval of documents supporting the modification request, closure plan.
- Assess any comments from the 60 day public comment period on the request, and the 45 day comment on the draft revised permit and public hearing.

B.2. Reduced Risk of Release and Improved Safety

Hazardous waste management standards are designed to prevent the release of hazardous wastes. Changes are often made via permit modifications to improve waste handling practices and further reduce the risk of releases to the environment. Other changes are made to specifically address safety concerns.

Improvements to hazardous waste handling can also be triggered by other environmental requirements. In particular, recent air pollution control regulations have driven environmental improvements to the management of certain hazardous wastes. See the highlighted case study.

Material and waste management requirements not governed by RCRA can sometimes trigger RCRA permit modifications. A case study in another section (Section D.2.) shows how the addition of non-RCRA tanks triggered the need for a RCRA permit modification (since it could influence the secondary containment needed for RCRA waste).

Fire detection and prevention

A fire occurred at the Stericycle Tacoma facility in Washington that caused the re-examination of current permitted procedures. The permit was modified by the Washington State Department of Ecology to include new requirements to reduce the likelihood of a future fire at Stericycle Tacoma during flammable liquid pump-up operations, including the installation of new lower explosive limit monitors. In addition, new pump-up procedures were instituted at this facility.

Outcome:

- Reduced risk of fires and better detection of potentially dangerous conditions.

Supported Compliance with Ambient Air Quality Standards for Lead

The Quemetco facility in Industry, California recycles batteries. The Battery Wrecker Process Area at this facility includes several permitted units, including the facility's battery wrecker, multiple tanks, and a clarifier. In March 2010, Quemetco submitted a request for a Class 1 permit modification to construct an enclosure around the Battery Wrecker Process Area to California's Department of Toxic Substance Control (DTSC).

The enclosure was necessary for Quemetco to comply with a new EPA standard for lead in ambient air and with local air quality regulations for Large Lead-Acid Battery Recyclers. Construction of the enclosure would capture fugitive lead dust emissions from the battery wrecker process. The permit modification would not affect the type or quantity of lead-acid or batteries recycled at the facility.

As part of the permit modification process, Quemetco was required to submit a copy of its financial assurance for closure of the Battery Wrecker Process Area Enclosure within 60 days of the modification approval. The process also required Quemetco to send a notice of the modification to all contacts on the facility's mailing list and the appropriate state and local government contacts. The modification was approved in November 2010.

Outcome: Reduction in the amount of lead in the ambient air and compliance with new air regulations.

Relocation of hazardous waste handling from dense urban area to an industrial area

A commercial waste treatment facility commenced operation in 1980 in what was, at that time, a rural area in the state of Washington. Over time, residential and other commercial land uses in the immediate vicinity of the facility have greatly increased. A permit modification by the Washington State Department of Ecology at the Stericycle Kent facility transferred a significant portion of the waste handling (free liquid pump-up operations and shredding of RCRA wastes) to another facility located in an industrial area away from more populated areas.

Outcomes:

- Reduced risk to the populated urban area.
- Responded to local community concerns and urban encroachment issues.

Enclosed lead smelting structures due to changes in the air regulations

Recent air regulations were applied to the secondary lead smelters that required that the storage of lead containing materials/wastes be totally enclosed. The air regulations required that materials/wastes being stored prior to re-smelting be managed in enclosed containment structures under negative air pressure. Containment structures/buildings necessary to meet the air requirements had to be constructed in accordance with the RCRA containment building regulations. This necessitated issuance of temporary authorizations and permit modifications by the Missouri Department of Natural Resources to facilitate construction completion by deadlines associated with the air regulations. The new structures better prevent releases to the environment and, in many cases, replaced outdoor storage of lead-bearing materials.

Outcomes:

- Improved environmental conditions for ambient air quality by reducing the amount of lead in the ambient air.
- Diminished the potential for airborne lead to be deposited and accumulated on the land and in nearby water bodies, which in turn, protected nearby populations and diminished the potential need for corrective action investigation and remediation.

B.3. Replacement of Damaged or Aging Equipment

As equipment to manage hazardous waste ages, it needs to be periodically replaced. The equipment can eventually show signs of corrosion from the natural elements and from "wear and tear." This equipment must be routinely inspected, maintained, and replaced as necessary to minimize the potential for releases of hazardous waste to the environment.

Replacement of New Equipment

A Class 2 permit modification was requested for the replacement of old sink/float tanks with new washers at the Quemetco facility in Industry, California. This was approved by California's Department of Toxic Substance Control (DTSC). The replacement of aging sink/float tanks normally requires a permit modification and is necessary to minimize the potential for ensuring the appropriate washing separation of hazardous waste from the other materials to protect the quality of the finished recyclable products. The plastic from the battery casings crushing operation are later recycled into paint cans.

Outcomes:

- Prevention of leaks or other releases by replacing old tanks with new tanks.
- Improvement of air quality by ensuring that less lead is attached to the plastic components of batteries prior to smelting
- Increase of the quality of finished recyclable products by reducing the lead components of the recyclable products.

C. Ensuring Long-Term Protection

Hazardous waste permits (and other regulatory instruments) have requirements for facilities to: (1) update closure or post-closure plans and financial assurance instruments/amounts to address future long-term environmental obligations; (2) conduct corrective action to address historical releases to the environment; and (3) provide notification of and address, as appropriate, any new releases and/or discovery of previously unidentified releases. This section discusses the different modifications used to address those issues.

INDEX C. Ensuring Long-Term Protection
Case Study Categories
Closure, Post-Closure Care and Corrective Action

Closure, Post-Closure Care, and Corrective Action

This category includes updates to closure and post-closure plans and selection of final remedies for corrective action.

Compliance with the closure and post-closure plans ensure that the environment will be protected long after the facility closes its permitted hazardous waste management units. If facilities do not clean close their unit(s), they will need to comply with standards for units closed with waste in place, including providing post-closure care. Additionally, RCRA permits must include requirements for facility-wide corrective action to address releases of hazardous waste and constituents. Certain key stages of the corrective action process (e.g., final remedy selection and implementation) often require modification of the permit to incorporate requirements into the permit, because they are frequently not identified at the time of permit issuance. The modification procedures involve public review and comment on proposed final remedy actions.

Cleanup and final remedy selection

The U.S. Army Redstone Arsenal (the Arsenal) located in Huntsville, Alabama, requested a permit modification for numerous changes that included: (1) the addition of a new permittee; (2) removal of seven solid waste management units (SWMUs) from a list of units needing investigation; (3) addition of two SWMUs that require investigation; and, (4) the removal of three SWMUs from a table specifying that corrective measures are needed. The new operator of the permitted open burn/open detonation areas of the Arsenal needed to be included as an additional permittee in order to better define the responsibilities of the onsite entities. This permit modification by the Alabama Department of Environmental Management also included the incorporation of the selected remedies to reduce contamination at six SWMUs within the Arsenal.

The permit modification requests with the completed investigation reports were included in the corrective measures implementation (CMI) plans for the respective SWMUs. The associated investigations were completed in about a year and area specific conditions of these units, from the CMI work plans, were added to the permit. These area specific conditions included summaries of the remedy, any land use restrictions for the site, and any long-term monitoring and maintenance activities required.

This addition to the permit of two new SWMUs that require investigation required the submittal of a SWMU assessment report. These modifications were needed for the areas to be properly investigated.

Outcomes:

- By adding a new permittee, the responsibilities were better defined, including a requirement to comply with submittal dates and schedules of compliance.
- Final remedy selection for 6 units was approved that resulted in the excavation and removal of contaminated soil and reduction/elimination of groundwater contamination sources.
- The selected remedies included the excavation and offsite disposal of about 2,870 cubic yards of perchlorate-contaminated soil, 45 cubic yards of TCE-contaminated soil and about 42 cubic yards of soil contaminated with benzo(a)pyrene and dibenz(a,h)anthracene.

Final Remedy Selection for Corrective Action\EPA Joint Permit

A final remedy selection for corrective action was approved as a Class 3 permit modification for Lafarge in Fredonia, Kansas. EPA Region 7 processed the modification in 2013 under the EPA portion of the permit (because Kansas was not authorized for corrective action in 2013).

Three solid waste management units were used for on-site cement kiln dust repositories and they contain elevated levels of heavy metals and volatile organic compounds. The investigation of the units identified a threat to the following if left unaddressed: direct contact, groundwater, and ecological receptors.

The selected remedy for each unit is capping with soil and vegetative cover, perpetual cap maintenance, groundwater monitoring, and institutional controls restricting cap disturbance and residential land use in the future.

Outcomes: Improved long-term environmental and human health protection. Reduced risk of release of the heavy metals and volatile organic compounds.

Associated Workload:

- To complete this modification, several documents had to be reviewed: correspondence letters, RCRA Facility Investigation Reports, CMI work plans and SWMU assessment reports.
- Comment letters and notice of deficiencies were prepared to highlight missing information and to request clarity regarding the Army's submissions. Revised documents were submitted to the Alabama

Department of Environmental Management for review.
- After the Department concurred with the Army's various documents, the permit was opened for modification. While incorporating the information and modifications described above, all references to those particular sections throughout the permit were checked for accuracy and modified where necessary to ensure proper reference.
- The draft permit was placed on public notice and no comments were received.

Addition of a risk management plan

The Occidental Chemical Company requested a Class 3 permit modification for its Geismar, Louisiana, facility to incorporate a Risk Management Plan as part of the final remedy being implemented under their post-closure permit. Financial assurance was put in place as part of this permit modification to ensure that there is funding to address contamination through corrective action.

The RMP includes beneficial reuse provisions for on-site soils that meet Risk Evaluation/Corrective Action Program (RECAP) soil standards. This is a common beneficial reuse practice that allows the facility to save money by not having to purchase additional soil for on-site use, or having to pay for disposal of certain soils as long as they meet the RECAP standards. The Louisiana Department of Environmental Quality approved this request.

Outcomes:
- The Risk Management Plan specified the corrective action final remedy and ensured the continuation of standards for protection of environmental quality after unit closure.
- Financial assurance was put in place for future corrective action activities to ensure funds will be available to conduct those activities even if the facility should experience financial difficulty or insolvency.
- The Risk Management Plan provides for beneficial reuse of soils on-site and cost savings for the facility.

Associated Workload:
- Public participation for this Class 3 modification included review and response to comments from the following: the required a pre-application public meeting with the, 60-day public comment period for the application, then a 45-day public comment period for the actual draft permit modification decision to be made.
- This modification required technical review by both a permit writer and geologist in order to make the final permit revisions.

Comprehensive risk reassessment, NPL-listing avoidance, and further investigation in support of an updated final remedy and facility property reuse/redevelopment

The National Nuclear Security Administration at the Bannister Federal Complex in Kansas City, Missouri, requested a Class 3 permit modification to add adjacent, previously unpermitted U.S. General Services Administration (GSA) property to their existing Hazardous Waste Management Facility Part I and EPA Hazardous and Solid Waste Amendments Part II Permits. This was intended to facilitate performance of a holistic environmental reassessment of the combined property in light of the pending move of the National Nuclear Security Administration and GSA personnel to new work locations. The modification was also needed to implement further remediation and potential near-term transfer of a portion of the permitted property to a private entity for subsequent reuse/redevelopment. This modification also served to keep the facility from being proposed for listing on the Superfund National Priorities List (NPL).

This modification to the permit by Missouri Department of Natural Resources was inherently complex since there were/are multiple owners/operators (including a new owner/operator being added), many prior uses of the land by many past owners that led to contaminant releases (primarily chlorinated solvents, polychlorinated biphenyls and petroleum hydrocarbons). A "Formerly Used Defense Site" located on the "annexed" GSA property is being handled by the U.S. Army Corps of Engineers and there is a great deal of public and political interest in the cleanup, disposition, and redevelopment of this aging (over 70 year old) federal complex.

Outcomes:

- Permit modification elements related to groundwater and the updated plan have been implemented. The other elements are in various stages of the review and approval process.
- There are weekly coordination calls on this project between the Department and EPA and monthly coordination meetings among all project stakeholders including the preferred private developer.
- In addition to the activities required of the current permittees by the permit modification, the preferred developer is in the process of:
    - Performing confirmatory due diligence investigations to independently assess environmental conditions.
    - Assessing updated final remedies in light of anticipated future reuse/redevelopment of the property.
    - Assessing the associated future costs as the basis for financial assurance needed to facilitate the early dirty (negative equity) transfer of this federal property to the private developer and thereafter ensure adequate financial assurance is provided for post-closure care and corrective action after the permit is transferred.

Associated Workload:

The primary permit modification elements included the following:

- Implementation of a groundwater remedy optimization plan and revised groundwater sampling and analysis plan to incorporate new wells on the "annexed" property,
- Implementation of updated groundwater analysis and reporting requirements,
- Revision and implementation of an updated Community Involvement Plan (CIP),
- Update the conceptual site model and identify any data gaps that required further investigation given the land area added to the permitted facility (Missouri DNR submitted a facility-wide report: "Description of Current Conditions Report and Screening Level Risk Assessment"), and
- Assessed a facility-wide polychlorinated biphenyl (PCB) fate and transport study in order to inform the permit modification decision.

Soil and groundwater sampling requirements in closure plan

The Aerojet facility, in Rancho Cordova California, requested a Class 2 permit modification in order to update the soil and groundwater sampling requirements in the closure plan. The closure plan revisions included additional sampling and analysis in order to further investigate the underlying soils. The closure plan also included changes in the closure cost estimate. California's Department of Toxic Substance Control assessed the permit modification request.

Outcomes:

- The vertical and lateral extent of perchlorate contamination in soils and the impact of perchlorate to the water table were identified.
- The results were used to determine if the unit could be clean closed or would need to be addressed through post-closure requirements.

Associated Workload:

- Public notice and preparation for/participation in public meetings.
- Assess groundwater reports and follow up on them.
- Financial assurance assessment.

Remediated Area for the Construction of New Warehouse

Loveland Products, Inc. (LPI), in Billings, Montana, requested a permit modification to change post-closure care and corrective action requirements for a closed surface impoundment. The existing permit requirements limited use of the space occupied by the surface impoundment and presented geotechnical problems for construction of a new warehouse. A permit modification was necessary to allow removal of the asphalt cap and excavation and shipment of the enclosed waste to an off-site permitted hazardous waste landfill. LPI requested a temporary authorization to allow excavation work to begin while permit modification procedures were being conducted. DEQ granted the authorization following public notice to all persons on the facility mailing list and to appropriate units of state and local governments. The temporary authorization allowed excavation and shipment of the waste to be accomplished during Montana's short construction season, avoiding environmental and human health exposure issues associated with excavations left open through the winter months.

Approximately 12,000 tons of hazardous waste and contaminated vadose zone soil was removed from the surface impoundment and disposed in a permitted hazardous waste landfill. The hardcover cap, originally installed to protect industrial workers and groundwater, is no longer required. LPI was able to construct a warehouse in the area, reusing space within the footprint of its facility.

Outcome: The modification demonstrates that regulated hazardous waste units can be remediated and the area reused. All wastes and contaminated vadose zone soil were removed from the surface impoundment area to make the area safe for construction and reuse.

Coordination, timing, and complexity: This permit modification was multi-faceted, requiring coordination between the Montana Department of Environmental Quality, the facility, EPA, and the state environmental contact for the facility receiving the excavated waste. Meetings to discuss the project were held several years prior to implementation. Timely review and approval of the modification request was necessary and important to accommodate the planned construction schedule.

The permit modification was complex; it involved a shortening of the post-closure care period, a change in the approved remedy, a determination of Corrective Action Management Unit eligibility, temporary authorization, and final modification approval. The modified remedy required extensive understanding of the requirements needed to address waste disposal.

D. Keeping Permits Up to Date

Permit modifications are often required for straightforward updates to align the permit with current conditions and operations at facilities. It is important for the permit to reflect the current facility information, provisions, and standards in the event that emergency situations arise. This also facilitates appropriate facility inspections by state and federal regulators.

One common type of permit modification relates to changes to the "General Permit Provisions" and "General Facility Standards" as outlined in 40 CFR 270.42 Appendix I. These updates are generally Class 1 modifications (some of these Class 1 modifications need prior Director's approval).

Many of these changes are administrative updates. Some of these are needed for emergency response (including changes to facility contacts), waste sampling changes, and other changes needed to keep the permit current and compliant.

INDEX D. Keeping Permits Up to Date
1. Emergency Response
2. Updates to Permit Standards and Conditions
3. Administrative Updates

D.1. Emergency Response

It is important to have current safety and emergency response information available and related equipment ready in the event there is a fire, spill, or other emergency at a permitted facility. There are permit modifications that owners and operators of permitted facilities must propose when certain changes are made at the facility. These changes include things such as updated emergency/contingency plans, emergency contacts, and emergency equipment. In addition, EPA has continued to emphasize the "Preparedness and Prevention Requirements for RCRA TSDFs" including ongoing communication and coordination with State Emergency Response Commissions, Local Emergency Planning Committees, local fire departments, and other state and local emergency response authorities, as appropriate.[20]

Coordination of emergency services, emergency contacts, and other updates

Rho-Chem LLC implemented a Class 1 permit modification to update facility information in the contingency plan. This included the following updates: the coordination of emergency services, spill control equipment, artificial night lighting, compliance history, and emergency coordinator (including alternates). This facility in Inglewood, California worked with California's Department of Toxic Substance Control on the permit modification. Public notices were sent as required by the regulations to state and local agencies and the mailing list within seven days of implementing the changes.

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[20] A March 5, 2010 EPA memo was sent from Matt Hale to the EPA RCRA Directors on "Preparedness and Prevention Requirements for RCRA TSDFs (Response to Chemical Safety Board Recommendation 2007-01-I-NC)." The memo states that "this guidance recommends that the TSDF permit explicitly require that the owners and operators provide up-to-date written information about the facility and hazardous waste located there to State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), local fire departments, and other state and local emergency response authorities, as appropriate." This guidance was also communicated to state programs through ASTSWMO.

Outcomes:

- Changes were made to update important safety/emergency response information at the facility.
- The regulators and public were notified of those changes to help facilitate timely coordination of emergency services and deployment of emergency equipment in the event of an emergency response.

D.2. Updates to Permit Standards and Conditions

The conditions governing management of hazardous waste in treatment, storage, and disposal units are specified in facility permits. Minor changes at any unit (or general facility standards) may trigger permit modifications. Seemingly simple Class 1 modifications can, after review by regulators, require substantial time and effort on the part of both regulators and permittees to complete. Sometimes proposed permit modifications are initially misclassified (i.e., a Class 1 modification request comes in from the facility but is determined by the regulatory agency to actually be a Class 2 or 3 modification). A great deal of the coordination with facilities often takes place before a complete permit modification request is even submitted. In addition, some permit modifications are actually precipitated by changes to requirements of other non-RCRA regulatory programs. A case study is described below how a non-hazardous unit addition could trigger a RCRA permit modification for secondary containment.

Addition of a Non-RCRA regulated tank to the secondary containment area for a RCRA regulated tank

A facility submitted a modification on October 30, 2013, to increase the capacity of their secondary containment for their tank farm. The increase was requested because they were replacing one non-RCRA regulated tank with two non-RCRA regulated tanks and the RCRA secondary containment volume requirements could be affected. The facility proposed raising the secondary containment wall with four-inch angle iron.

In order for North Carolina Department of Environment and Natural Resources (NCDENR) to assess the proposed modification, the facility needed to submit the following additional information: new permit-related drawings; inspection procedures; updates to the secondary containment volume calculations; angle iron installation specifications; and information regarding use of secondary containment sealants and inspection details for the altered secondary containment.

NCDENR and the facility had multiple discussions on the proposed changes to resolve issues so that the agency could begin processing the request. These discussions included helping the facility with the secondary containment calculations and requests for additional information. Because of the technical assistance provided by NCDENR, the facility ultimately determined that the angle iron extension was not needed as the secondary containment calculations contained an incorrect assumption regarding the shape of the bottoms of the new tanks. The existing secondary containment volume was sufficient since the new tanks had spherical bottoms and NCDENR agreed that a Class 2 modification was not needed to increase the secondary containment capacity, though a Class 1 modification was still needed for the changes. A revised permit modification request was submitted in December 2013 and the Class 1 modification was approved by NCDENR in May 2014.

Outcomes:

- NCDENR provided significant technical assistance to the facility to address issues associated with their proposed Class 2 permit modification to add new tanks.

- NCDENR determined that the facility's secondary containment calculations showed that the existing secondary containment volume was sufficient and thus the proposed changes would require a Class 1 permit modification with prior Director's approval in lieu of the proposed Class 2 modification.

Keeping the facility information updated in the permit

The HGST, Inc., facility in San Jose, California, requested several Class 1 permit modifications over a short period of time and all necessitated individual notices to the mailing list. The modifications included the following: (1) revised closure plan for three tanks including clarification of decontamination procedures and connecting piping system; (2) revised closure plan for seven tanks including clarification of the decontamination procedures for new equipment used to manage waste; (3) installation of tie in valves to improve the support and transfer function of a heavy metal waste pipeline; (4) owner's, operator's and facility name change from Hitachi Global Storage Technologies Inc. to HGST Inc.; and (5) administrative changes to update the inspection checklist for units and update training plan job titles. The permitting agency, California's Department of Toxic Substance Control, processed the permit modifications.

Outcomes:

- Closure decontamination procedures were clarified and improvements were implemented to the support and transfer of a portion of the waste handled.
- The permit and related documents was updated to reflect current information, including current facility owner/operator information.

Replace hazardous waste storage unit containers with ones of a different type and size

This Class 2 permit modification request from Rho-Chem LLC resulted in replacement of certain hazardous waste storage unit containers with others of a different type and size but did not increase the storage capacity at the facility. California's Department of Toxic Substance Control modified the permit.

Outcome:

- Replacement of hazardous waste storage container units with different types that were better suited for the ongoing operations at the facility.

D.3. Administrative Updates

Permit modifications are often requested for administrative or informational purposes that are not related to physical improvements that need to occur at the facility. Although informational changes are typically simple and straightforward, they can require a surprising level of administrative effort from permittees and regulatory officials. For example, facility name changes are common and often trigger substantial additional review effort on the part of regulatory officials to confirm that the name change does not stem from a change in facility ownership or operational control, which would require updates to financial assurance or other compliance mechanisms.

Facility Name Change

In 2014, Evoqua Water Technologies LLC requested a Class 1 permit modification for its hazardous waste management facility in Vernon, California, to change the name of the owner and operator from "Siemens Water Technologies LLC" to "Evoqua Water Technologies, LLC." This is a common modification and seemingly easy, but as part of the modification process, Evoqua was required to notify all contacts on the facility's mailing list and the appropriate state and local agencies of the name change. California's Department of Toxic Substance Control permitting staff also had to review the request to ensure that it was not an ownership change and that the current financial assurance was adequate.

Outcomes:

- The permit and related documents were updated to reflect the new owner.
- Financial assurance was reviewed and confirmed as still viable/applicable.

Extend closure period due to funding delays

The National Aeronautics and Space Administration (NASA) in New Orleans, Louisiana, requested a Class 1 permit modification to extend the closure period for three tanks by 180 days. This modification was necessary to accommodate funding delays resulting from the Federal government sequestration.

Outcome:

- Delays in the enforceable closure schedule were approved by the Louisiana Department of Environmental Quality.

E. Modifications over the "Life of a Permit"

A case study of permit modifications over the life of a permit shows the volume of permit modification work as compared to the individual case studies listed above.

ENVIROSAFE SERVICES OF OHIO INC, (OHD045243706)

This facility is located in Oregon, Ohio and has been permitted since 1988. It has more modifications per year than most facilities, but they are largely Class 1's. Although the table below shows the permit modifications that were entered in the national database, it does not show all the permit maintenance involved (for example, compiling environmental impact statements).

This facility has eleven hazardous waste management units that are permitted. It also has expansive facility-wide corrective action that is being addressed under the authority of the permit. This facility has permitted storage and treatment units in addition to a landfill that will continue to need post-closure care under the permit when closure obligations have been satisfied.

Note that the permits below were issued by both EPA Region 5 and Ohio EPA. As states have become authorized for all of the RCRA programs, joint permits between the State and EPA have become less common. The information about the individual permit modification approvals often references a specific section of the permit and the unit or well referenced in the change to the permit. The vast majority of these modifications are requested by the permittee, but the permit modification workload has included Agency-initiated modifications as well. Ohio EPA has historically used Director-initiated modifications for selection of corrective measures for RCRA Corrective Action. For this facility, a Director-initiated modification selecting a containment strategy for historic waste management units on a portion of the facility was approved September 12, 2006. These rare Director-initiated modifications generally require a similar process to issuing a full permit and are typically as complex as Class 3 modifications.

Dates	Type of Permit Modification (Mod)
11/8/88	**Federal portion of the permit issued by EPA Region 5**
5/8/91	**State portion of the permit issued by Ohio EPA**
Mods under the First set of Permit Issuances by EPA and the State	
	1 Mod Approval for Additional Capacity.
	2 Class 3 mod approval for vertical expansion.
	6 Mod Approvals for Groundwater Monitoring.
	58 Mod approvals for unspecified ("Other") mods.
	Note: No mods were documented for the first 10 years; there may have been some mods, but not captured in the early ears of tracking RCRA data.
12/29/05	**Joint Permit issued by the state program, Ohio EPA (Renewal)**
	Joint Permit Issued by the EPA, Region 5. (Renewal)
2/21/06	(Federal portion of joint RCRA permit covering 40 CFR Subparts BB, CC, and DD)
Mods under the Second set of Permit Issuances by EPA and the State	
2006 Mods	
2/3/06	Update facility annual closure/post closure cost estimate.
2/21/06	Mod Approval (Other Mod)
3/16/06	Class 1A Mod approval to install a portable high capacity vacuum system.
4/3/06	Class 1A approval for (PQL's), addition of statistical comparison standards, revised well construction logs for monitoring, and addition of method 420.1
5/3/06	Mod regarding analytical methods.

5/18/06	Approval to remove ground water monitoring wells SW-3D and MR-4S and add ground water monitoring well F-2D to affected well list for Total Phenols.
6/9/06	Approval to add previously approved and/or acknowledged mod to ESOI's December 29, 2005 permit.
8/17/06	Class 1A mod approval to replace outdated HDPE liner specifications on Table 1 of Appendix D.7.4 of permit application with standard HDPE specifications.
9/12/06	This permit mod was initiated by Ohio EPA to incorporate permit specific corrective action measures that collectively represent a containment strategy for old waste management units in the northern portion of the facility.
10/20/06	Class 1 mod approval to update City of Toledo Raw Waterline Security Agreement Weekly Inspection form.
10/20/06	Class 1 mod approval to remove the form of precipitation from permit condition J.7(b)(iii).
11/10/06	Class 1 mod to allow facility to utilize analysis of wells which are sampled in accordance with the permit and in the calendar month preceding an April and/or October semi-annual sampling event.
11/10/06	Class 1A mod approval to add and remove monitoring wells, remove benzene and selenium & fluoride
2007 Mods	
2/6/07	Class 1 mod approval to make changes to the inspection forms MF-02b (Containment Building) & MF-13 (Groundwater Monitoring Wells).
3/13/07	Class 1 mod approval for complete clean copy of the permit application.
3/16/07	Class 1A mod approval to add leachate collection and removal system performance objectives for WMSs 5, 6, & 7.
3/21/07	Class 1A mod for change in the methodology for determining hydraulic gradients and travel distances used in the ACL model.
3/29/07	Class 1A mod approval to replace the June 30, 2006 permit application with the former permit application dated August 15, 1983.
4/13/07	Class 1A mod approval to update affected and adjacent well listing at Appendix E.9 to add R-23, G-1DA, and G-1S as wells nested or adjacent to affected wells.
4/20/07	Class 1 mod approval for information on two newly installed monitoring wells.
5/8/07	Class 1A mod approval for data validation definitions in Appendix E.12 of Part B.
5/17/07	Class 1 mod approval for the Contingency Plan emergency contact information.
5/17/07	Class 1 mod approval for changes to Table of Contents to update reference to inspection forms MF-02b & MF-13.
5/17/07	Class 1 mod approval for changes to the closure/post closure cost estimate.
6/6/07	Class 1 mod approval to replace Part A RCRA Subtitle C Site I.D. form with EPA Form 8700-23.
6/20/07	Class 1 mod approval to correct revision numbers for detail drawings.
8/10/07	Class 1A mod approval to establish a target leachate head level for the west area of SWMU 5.
10/5/07	Class 1A mod approval to update dioxin/furan analysis.
11/9/07	Class 1A mod approval for update to add procedures to prevent inadvertent introduction of petroleum constituents to groundwater samples when using fueled field equipment.
11/9/07	Class 1A mod approval to include total metal prediction limits.
11/9/07	Class 1A mod approval to clarify that the ACL for areas subject to corrective action will not need to be reevaluated unless conditions change
12/5/07	Class 1 mod for informational changes (revise Permit Condition F.5 on page 91 of 165).
12/5/07	Class 1A mod approval for correction of conflicting information in the permit application regarding how earthen dikes will be constructed and managed on Hazardous Waste Landfill Cell M.
12/11/07	Class 1 mod to revise cover page for Appendix F.8 "Rail Line Inspection Forms" and revise forms MF-16(a).
2008 Mods	
1/7/08	Class 1A mod approval to update the statistical prediction limit at monitoring well
1/31/08	Class 1A mod to change the timing requirements for 3rd party data validation of semi-annual groundwater monitoring reports.
2/1/08	Class 1 mod approval to update Section G, Contingency Plan.
2/5/08	Class 1 mod approval to revise cyanide & sulfide testing methods and concentration limits.
2/8/08	Class 1A mod approval to include a Master Boring Log & Well Summary Table, Master Boring & Well log Location Drawings and well construction logs.
3/6/08	Class 1 mod approval for historical log submittal to ensure facility permit contains all boring, well construction, and well abandonment information.
3/6/08	Class 1A mod approval for Sampling and Analysis Plan updates.
4/10/08	Class 1 mod approval to add 1,4 dioxane to the affected constituent list for Monitoring Well SW-3D and to add Monitoring Well SW-3S to the affected well list for 1,4 dioxane.
5/8/08	Class 1A mod approval to add geologic cross section drawings 1 thru 10 covering the Integrated Ground Water Monitoring Program.
5/8/08	Class 1A mod approval.
5/28/08	Class 1 mod to update emergency coordinator info & revise fire brigade response personnel.
5/29/08	Class 1 mod to update closure/cost-closure cost estimates.
6/26/08	Class 1A mod approval total metals prediction limits for monitoring well R24 added to Integrated Ground Water Monitoring Program.

6/26/08	Class 1 mod to update list of boring and monitoring well information on page E.13-24.
8/20/08	Class 2 mod approval to discontinue the semi-annual analysis of the naturally occurring constituents: sodium, chloride, and fluoride as early warning indicators of a potential release from regulated units.
9/22/08	Class 1A mod approval to add 1,4-Dioxanne , add MR-3S, add nickel to the affected constituent list, and remove MR-4D and SW-2D.
9/22/08	Class 1A mod approval to update the dissolved barium comparison standards for all IGWMP wells excluding M-18S, R-23, and R-24.
9/25/08	Class 1A mod approval to update the Master Boring and Well log, update the cover page, and add well abandonment logs.
10/17/08	Class 1 mod approval for revisions to Section E for typo corrections.
2009 Mods	
3/6/09	Class1A mod approval to remove existing cover page for appendix D.2, add pages D.2-1 and D.2-2, and replace Section D cover page and Table of Contents pages D-viii thru D-xi.
4/16/09	Class 1A mod approval benzene, chloroethane, and vinyl chloride from the COSs from affected well F-2S.
4/23/09	Class 1A mod approval to add total metals predictions limits for monitoring wells G-1DA, M-18S, and M-17D.
5/21/09	Class 1 mod to update the closure & post-closure cost estimate.
6/1/09	Class 1 mod for replacement and relocation of CSF safety showers with equivalent units.
6/2/09	Class 1A mod for implementation of schedule and final design plans for SWMI I (Cell F).
6/8/09	Class 1 mod for recalculating of secondary containment for Caustic Building and Tanks 70, 73 and 74.
7/17/09	Class 1 mod to clarify notification requirements of the Response Action Plan for Containment building.
7/17/09	Class 1 mod to replace existing appendix F.10, F.10-1, and F-1(p) pages in the permit application.
7/21/09	Class 1A mod to require security at gates only when open or unlocked, and typo corrections.
8/20/09	Class 1 mod to replace Section D Table of Contents, replace existing Appendix D.5, and add pages D.5.1.
8/20/09	Class 1 mod to include the "Cell M Transducer Certification Report - May 2009."
9/8/09	Class 1A mod to Appendix D.15 Submersible Pumps and Transducer Specifications of Part B application.
9/15/09	Class 1 mod to replace existing pages D-12 through D-15, 17, 23, and 58.
10/7/09	Class 1A mod to revise and relocate the Stone Drain Column Specifications from Appendix D.31.
10/21/09	Class 1A mod for changes to Appendix E.13, Boring and Monitoring Well Information.
10/21/09	Class 1 mod to Appendix E.9 from affected well list, removal of benzene from affected constituent list and removal of trichlorofluoromethane.
11/6/09	Class 1A mod approval to allow for management of mixed RCRA & TSCA remediation waste with total PCBs concentrations.
11/27/09	Class 1 mod approval for changes to the Table "Maximum PQLs" located in Attachment C to Appendix E.9.
12/9/09	Class 1 mod approval for changes to ground water monitoring well reference point elevations.
12/17/09	Class 1A mod approval for changes in total metals prediction limits for monitoring wells and total cyanide prediction limit.
2010 Mods	
2/1/10	Class 1A mod to Module G (waterline trench monitoring program) to clarify the inspection, record keeping, and reporting requirements.
2/10/10	Class 2 mod approval to reduce height of Cell M landfill from 714 feet MSL to 700 feet MSL.
2/26/10	Class 1 mod for administrative and correctional updates i.e. revise pages G-1 and G-33. Update emergency coordinator information and update the Fire Brigade response personnel.
3/3/10	Class IA mod to replace Module K permit pages 140 to 156 with revised pages having the same page number.
3/12/10	Class 1 mod for page replacement in the Part A Application.
4/14/10	Class 1A mod for removal of dissolved barium from the affected constituents of concern list for affected well SW-2S.
4/21/10	Class 1A mod for revisions to Module J of the Permit regarding pumping inspection, reporting & maintenance requirement for Cell M's leachate collection system, ...
5/18/10	Class 1 mod for administrative and informational changes.
6/22/10	Class 1A mod approval to add prediction limits for total metals for Monitoring Wells I-5SA and MR-3S.
6/22/10	Class 1A mod approval to clarify miscellaneous groundwater items in the Permit and Part B Permit Application.
7/6/10	Received request from facility on 7/6/10 to WITHDRAW previous mod to provide updated performance monitoring for leachate extraction at SWMU's 5, 6 & 7.
8/23/10	Class 1A mod approval to upgrade the leachate extraction systems.
8/23/10	Class 1 mod approval to update the closure and post-closure cost estimates.
10/14/10	Class 1A mod to update Appendix E.9, Groundwater Monitoring Program Sampling and Analysis Plan
10/27/10	Class 1 mod to replace existing pages D.49-8 and D.49.9 and replace the existing Appendix D.49 Cover Page.
11/15/10	Class 1 mod replace module conditions J.1dv and J.1dva on page 119 of 165 and J.4ei and J.4eii on page 127 of 165. Also, replace existing permit application page G.1-3 with revised page dated September 27, 2010.
11/24/10	Class 1 mod to remove outdated info from the Container Storage Area Inspection form MF-07 of the Part B Permit Application.

2011 Mods	
1/11/11	Class 1 mod to permit conditions B.5 and B.5(b) & B.5(b)(iv) to specify inspection frequencies.
2/11/11	Class 1 mod to allow for container storage in any of the designated storage areas within the Stabilization/Containment Building up to the aggregate total storage capacity of 1185 cubic yards.
3/21/11	Class 1A mod approval to clarify language for Table B-1 and allows the processing of certain soil and debris wastes.
5/12/11	CLASS 1A Mod to update Attachment D, Affected and Adjacent Well Listing. Chloroethane has been added to monitoring Well F-2S.
6/20/11	CLASS 1A Mod to update the OMPM Plan for leachate extraction at SWMU 5, 6, and 7.
7/29/11	CLASS 2 Mod to treat hazardous waste containing free liquids and to add chemical oxidation, chemical reduction, and activated carbon treatments in the Stabilization/Containment BLDG.
7/29/11	CLASS 2 Mod to treat hazardous waste using encapsulation technology within 4 open-top metal tanks in Cell M.
2012 Mods	
1/25/12	CLASS 1 Permit Mod - Groundwater monitoring program sampling and analysis plan - Changes to plan as it related to sampling wells with high turbidity water.
1/25/12	CLASS 1A Permit Mod - Groundwater monitoring program sampling and analysis plan - changes to plan - affected and adjacent Well listing, 1,4 - Dioxane was removed from the affected constituent list at Well MR-1SA.
2/7/12	CLASS 1A PERMIT MOD - Revision of permit condition B.3(J)(I) to correct the citation reference to the mixture and derived-from rule in OAC 3745-51-03.
3/21/12	CLASS 1 Permit Mod - Updating the facility closure and post-closure cost estimates for inflation.
3/21/12	CLASS 1 Mod - Updating several inspection checklists used by the facility to reduce duplication and remove irrelevant questions.
8/2/12	CLASS 1A Mod to update prediction limits for barium (dissolved) at Well G-2DA and cyanide at Well R-6.
2013 Mods	
3/19/13	CLASS 1A Mod to change prediction limits for each qualifying monitoring well and a detailed description of the methods used to calculate the statistical comparison standards for the monitoring wells.
4/10/13	CLASS 1A Mods to Update: 1) Addition of tetrahydrofuran to the Affected Constituent List for Well SW-025 2) Removal of tetrahydrofuran from the Affected Constituent List for Well SW-03D 3) Removal of nickel from the Affected Constituent List for Well SW-035
4/10/13	Class 1A Mod to remove nickel from the affected constituent list for Well MR-045.
10/1/13	Class 1A mod approval to change attachment D, affected and adjacent well listing.
11/25/13	Class 1 mod approval to change EL and EH definitions and update well logs due to maintenance of well DUG-1.
11/26/13	Class 1A mod approval to reduce waste minimization requirements and reduce the required submittal of waste minimization reports to OEPA from every two years to every five years.
12/24/13	Class 1 mod approval to update permit conditions b.25 and k.7 to correct rules citations and update to current language for biennial reporting and to update section E.9 and section J of the permit application to correct rules citations and update for biennial reporting.
12/24/13	Mod approved to 1)Update dates of closure for cell M, Storage areas H and K and storage tanks s100, s200 and s400 in section 1 of permit app. 2) Correct typographical errors and remove outdated language from section 1 of permit app and 3) Update closure and post closure cost estimates and financial requirements for inflation in appendix 1.5 of the permit app.
This information came from RCRAInfo event codes on permit determinations and mod approvals. The detail about the mods was taken verbatim (in most cases) from the notes section for the permit mod approval event codes.	

APPENDIX

1. Modification Types Based on Regulatory Descriptions

This document includes: (1) the regulatory classifications for types of permit modifications and a crosswalk to applicable regulations, and (2) a table with the classification of permit modifications (Appendix I to §270.42).

2. Permit Modification Data: Background and Details

This document provides additional information and background on how the data for this report was collected, including the specific method for how information was retrieved and analyzed from EPA's national hazardous waste database (RCRAInfo).

~~~~ The materials in the appendix are contained in separate documents ~~~~

A.5 NPDES Permit Issuance Timeframes

(not available online)

National Pollutant Discharge Elimination System (NPDES) Permits

CWA Section 402

EPA estimates that the NPDES program requires permit coverage for approximately 727,200 facilities or activities. Permit coverage is provided by one of two permit types: General Permits or Individual Permits. General permits are issued to a category or class of facility of activity, and are used to cover the vast majority (680,500) of discharges requiring NPDES permits. Individual permits incorporate more site-specific limits and conditions and are issued to a relatively small number (46,700) of the more complex facilities or activities. The universe of individual permits, comprises approximately 14,200 Publicly-owned Treatment Works (POTWs), 1,000 large and medium (i.e., populations > 100,000) Municipal Separate Storm Sewer Systems (MS4s) and 31,500 non-POTW (i.e., industrial, commercial) facilities or activities. State permitting authorities issue approximately 90% of the NPDES permits and EPA Regions and EPA Headquarters issue approximately 10%.

As noted above, NPDES **General Permits** are issued by a state or EPA to cover a class or category of activity. Procedurally, the state or EPA first drafts and issues the General Permit, and once issued, eligible facilities or activities seek coverage under the permit. Each General Permit establishes the specific process for seeking and granting permit coverage. In most cases, permits require submission of a "Notice of Intent (NOI)" to be covered, which usually requires basic registration information and perhaps some supplemental site-specific information. Each General Permit also provides the timing and process by which the discharge is authorized. For most General Permits, dischargers are authorized to begin the covered activity within a matter of days (e.g., 14-days following submission of a complete NOI). This timing varies from permit to permit, typically ranging from immediate authorization to a matter of days. Both existing and new dischargers eligible for coverage under General Permits utilize the same registration process; although there may be some additional information required under some permits for first-time registrants. See Table 1 for a breakdown of the major General Permit types and timelines.

NPDES **Individual Permits** require renewing and new dischargers to submit detailed application forms prior to the drafting of the NPDES Permit. See Table 2 for breakdown of the types, categories, and timelines for issuance of individual permits.

- **Renewing (existing) dischargers** that wish to renew their NPDES permit must submit a complete renewal application at least 180 days prior to the expiration of their existing permits. This timing provides permitting authorities approximately 180 days to draft the site-specific individual permit based on the information provided by the applicant. The NPDES regulations also provide that where an applicant submits a timely application for renewal of its NPDES permit and the permitting authority (EPA or State) fails to reissue the permit before the expiration date of the existing permit, the terms and conditions of the expired permit remain in effect and the discharge remains authorized until a new permit is issued. Because the CWA establishes a maximum term of 5-years for the 46,700 individual NPDES permits, approximately 20% (9,340) require renewal each year.
- **New (proposed) dischargers** are required under federal regulations to submit completed applications at least 180 days prior to commencement of discharge, which provides the permitting authority approximately 6 months to develop a draft individual permit. EPA estimates that a relatively small number of new facilities (200) apply for their first NPDES individual permit each year.

Public participation is a key part of the NPDES permit issuance process. Authorized states and EPA must notify the public and any affected states of the issuance of a permit and provide an opportunity for comment. *See* CWA 402(b)(3). Additionally, depending on the permitting circumstances and applicable state/federal environmental statutes, the state permitting authority or EPA may have to consult with other entities (e.g., U.S. Fish and Wildlife Service, tribes). Any of these public participation and consultation processes can significantly affect the timing of permit issuance.

TABLE 1 – General Permit Categories and Timing (State- and EPA Issued Permits)

Facility/Activity Category	Approximate Number of Facilities/Activities	Approximate Time to Receive Coverage	Notes
Vessels	65,000	No NOI (immediate coverage) to 7 days (majority)	
Pesticide Applications	365,000	No NOI (majority) to 10 days	
Other non-stormwater	70,000	Varies widely. Typically several days.	
Stormwater: • Phase II MS4s • Industrial • Large construction • Small Construction	 6,000 90,000 36,500/year 48,000/year	 - Days to weeks - Varies days to months - 14 days - No NOI (immediate coverage) to 14 days	Coverages can be "held" where site-specific issues (e.g., ESA) identified.

TABLE 2 – Individual Permit Categories and Timing (State- and EPA-Issued Permits)

Facility/Activity Category	Approximate Number of Facilities/Activities	Approximate Time to Develop and Issue Draft Permit	Notes
POTWs • Major • Minor	 4,200 10,000	 180 days 180 days	Timelines vary widely dependent on permit significance, public involvement, and consultations
Non-POTW (Industrial) • Major • Minor	 2,500 29,000	 180 days 180 days	Timelines vary widely dependent on permit significance, public involvement, and consultations
Phase I MS4s	1,000	180 days	Timelines vary widely dependent on permit significance, public involvement, and consultations

B.1 Hazardous Waste, Treatment, Storage, and Disposal Facilities Regulations, 2011 (pages 3-10)

Link - Hazardous Waste Treatment, Storage, and Disposal Facilities Regulations

Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) Regulations

A User-Friendly Reference Document for RCRA Subtitle C Permit Writers and Permittees

12/1/2014
EPA 530-R-11-006
Version 4

Overview of the Hazardous Waste RCRA Permitting Processes (Flowcharts) – interactive versions of the flowcharts

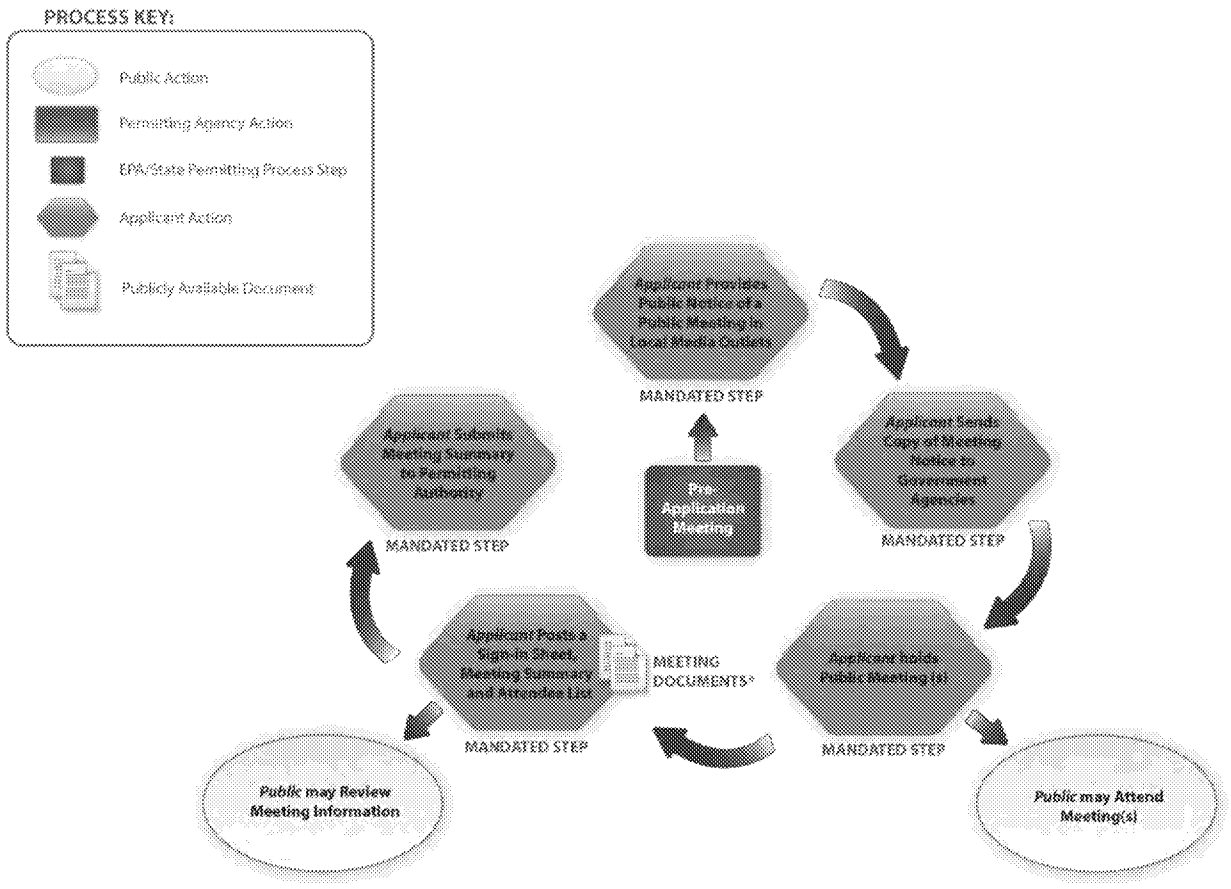
Note: *The following 7 RCRA permitting process flow diagrams that summarize public involvement activities (see the RCRA Public Participation Manual) were released for public comment pursuant to the Office of Solid Waste and Emergency Response (OSWER) Community Engagement Initiative (CEI). Under CEI Action 1, OSWER developed and posted program work plans, which identified specific processes that should be evaluated and potentially revised to enhance public participation.*

OSWER sought public comment on those work plans and on the following RCRA permitting program process diagrams, which were developed to increase transparency of the opportunities for community involvement. The comment period for the work plans and process diagrams ended on July 31, 2011. EPA will assess comments received and, as a result, may modify these process diagrams. If that happens, the following process flow diagrams will be updated accordingly.

Note: *For a short synopsis of the hazardous waste permitting process see The Hazardous Waste Permitting Process: A Citizens Guide, which uses a question and answer format.*

For a more detailed description of the hazardous waste permitting process, see Permit Applicants' Guidance Manual for Hazardous Waste Land Treatment, Storage and Disposal Facilities, Final Draft (PDF, 668 pp, 23MB)

RCRA Hazardous Waste Pre-Permit Application Meeting



Additional Information

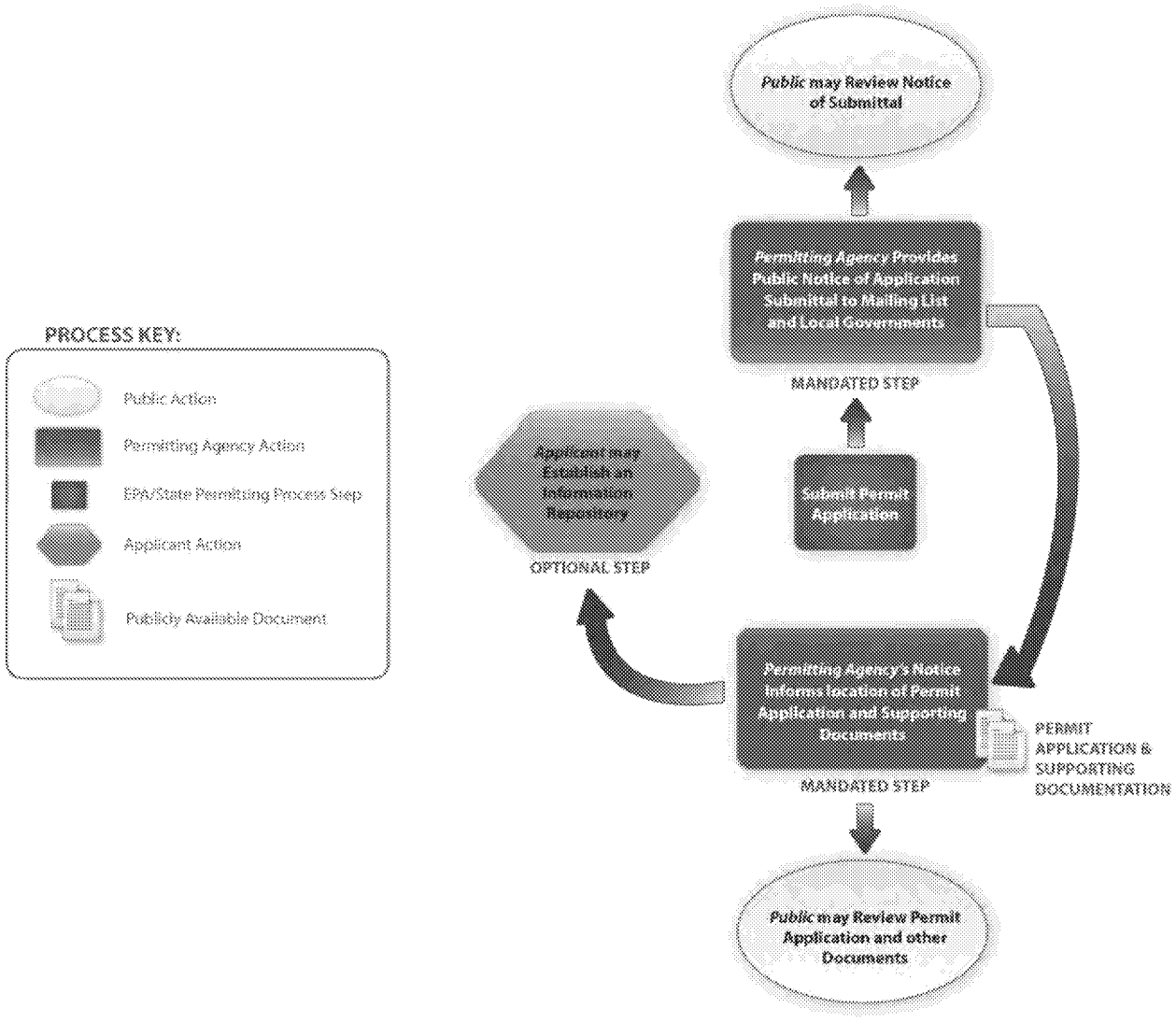
When an applicant announces an upcoming meeting through a public notice, it must include:

- The date, time, and location of the meeting.
- A brief description of the purpose of the meeting.
- A brief description of the facility and proposed operations, including the address or a map of the facility location.
- A statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting.
- The name, address, and telephone number of a contact person for the applicant.

*Meeting Documents include: Meeting Summary, Attendee List, Attendee Feedback, and Applicant Responses to Attendee Feedback.

NOTE: This step applies only to RCRA hazardous waste permits for new TSDF facilities and RCRA hazardous waste renewal permits for existing TSDF facilities that undergo significant changes, and does not apply to post-closure or post-closure / corrective action permits.

Submit a RCRA Hazardous Waste Permit Application

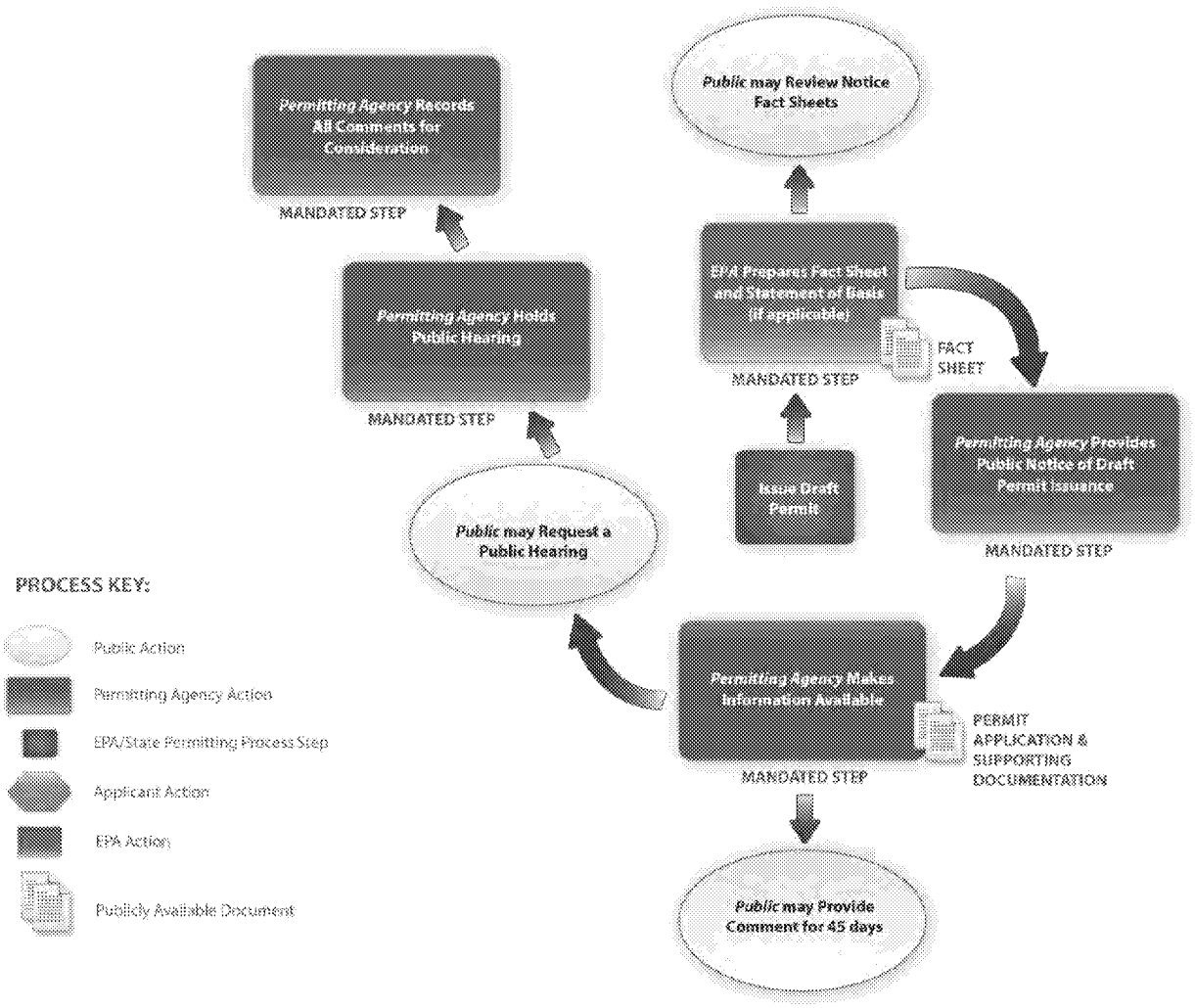


Additional Information

When the Permitting Agency announces the permit application submittal, the public notice must include:

- The name and telephone number of the applicant's contact person.
- The name and telephone number of the permitting agency's contact office and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process.
- An address to which people can write to be put on the facility mailing list.
- The location where copies of the permit application and any supporting documents can be viewed and copied.
- A brief description of the facility and proposed operations, including the address or a map of the facility location on the front page of the notice.
- The date the application was submitted.

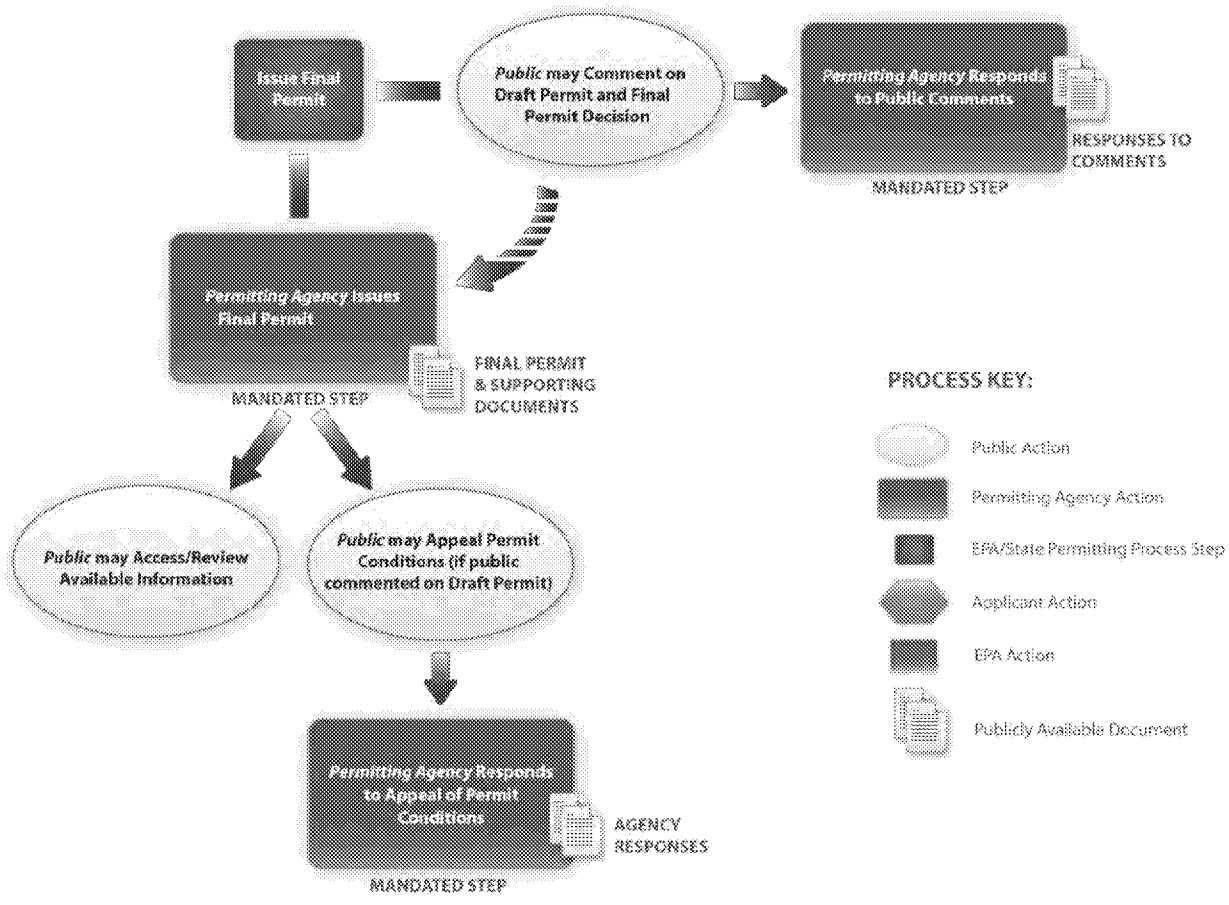
Issue a Draft RCRA Hazardous Waste Permit



Additional Information

- Permitting agencies can keep the process open by sharing all Notice of Deficiency (NOD) information with the public, whether through the administrative record, an information repository, or another activity, such as a workshop.
- Interested community groups or the permit applicant may decide to provide additional public participation activities during this stage. These could include technical discussions to explain the NOD process or informal meetings with the permitting agency.
- The agency, facility, or a public interest group may want to organize an availability session, facility tours, or some other activity prior to the comment period so that the public can be better informed about the facility.

Issue a Final RCRA Hazardous Waste Permit

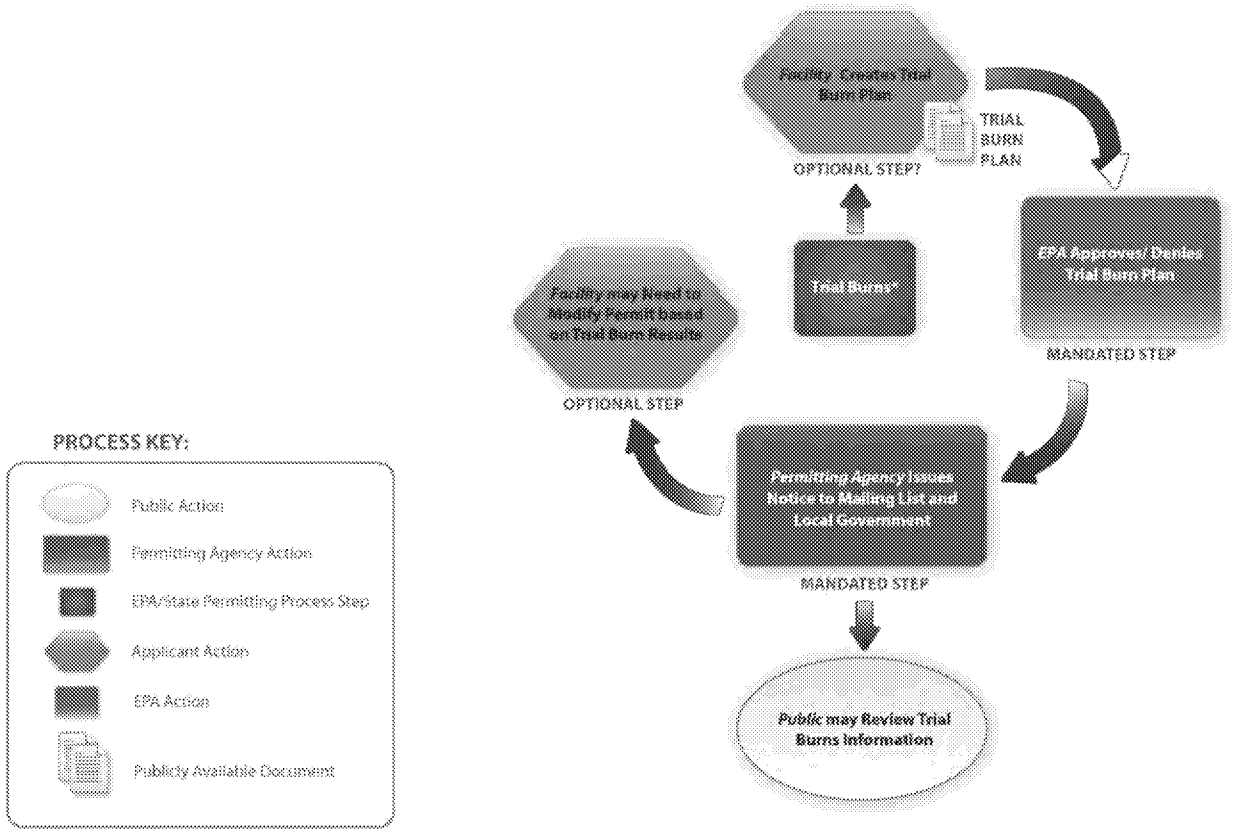


Additional Information

- If there was high interest during the comment period, the agency or the facility may want to issue a news release and fact sheet when the decision is finalized to inform a wide audience.
- The Permitting Agency may choose to update and release the fact sheet required in §124.8.

NOTE: Permitting Agency responses to public comments on the Draft Permit are placed in the Administrative Record and Information Repository.

RCRA Hazardous Waste Combustor Trial Burns



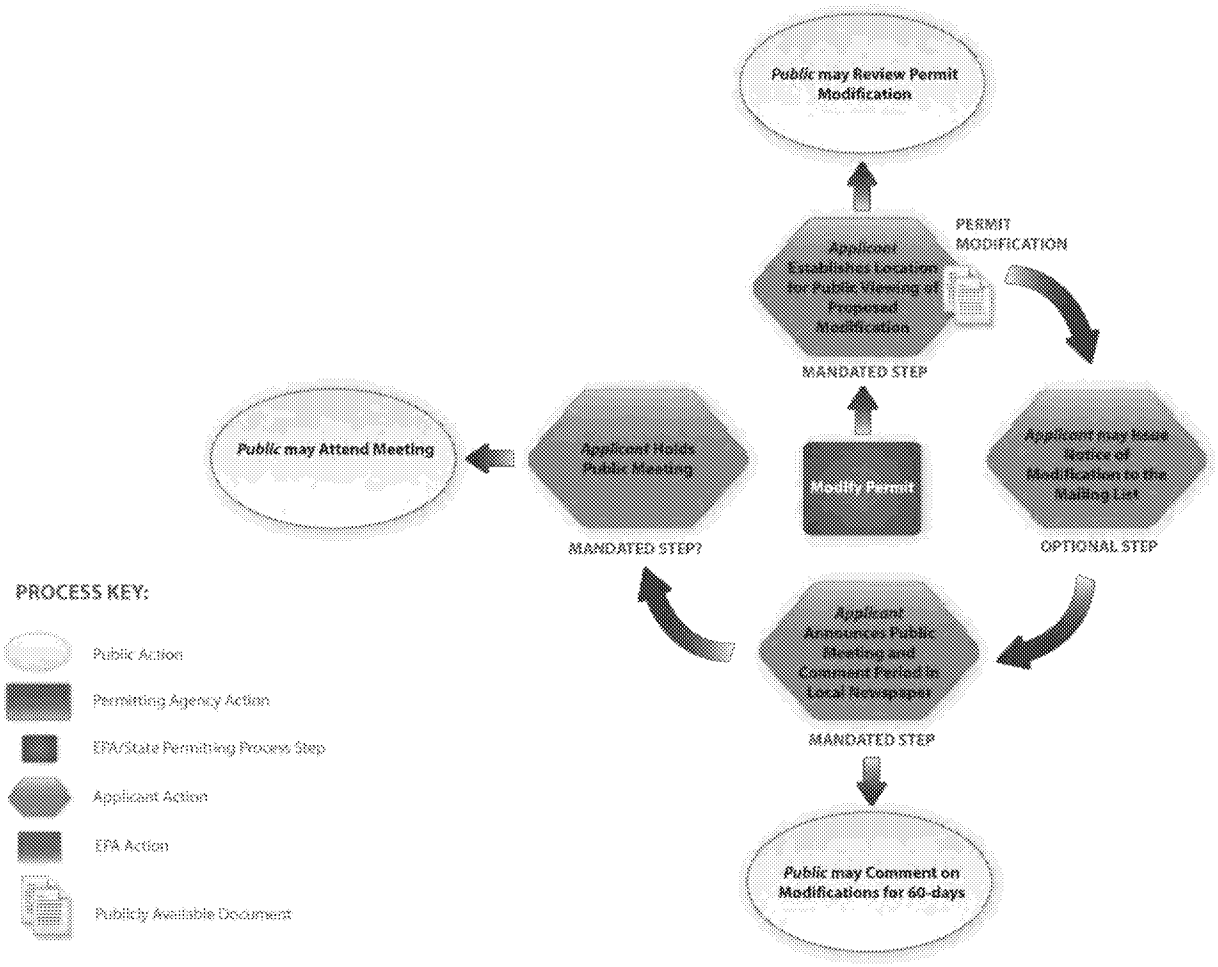
Additional Information

***NOTE:** Emissions from combustion sources burning hazardous waste (e.g., cement kilns, incinerators, lightweight aggregate kilns, boilers and hydrochloric acid production furnaces) are primarily regulated pursuant to Clean Air Act and applicable Title V requirements. However, these combustion sources still need a RCRA permit to operate even after documenting compliance with CAA requirements. The RCRA permit only needs to address basic hazardous waste management including: general facility standards; corrective action; other hazardous waste management units (such as storage units); other combustor-specific concerns such as materials handling; and, any risk-based combustor emission and operating requirements that are more stringent than the relevant MACT standard.

The Clean Air Act title V permit will focus on the operation of the combustion unit including the MACT air emission standards and related operating parameters.

- Maximum Achievable Control Technology (MACT) EEE Test Requirements
- Clean Air Act – Title V Permits

Modify a RCRA Hazardous Waste Permit

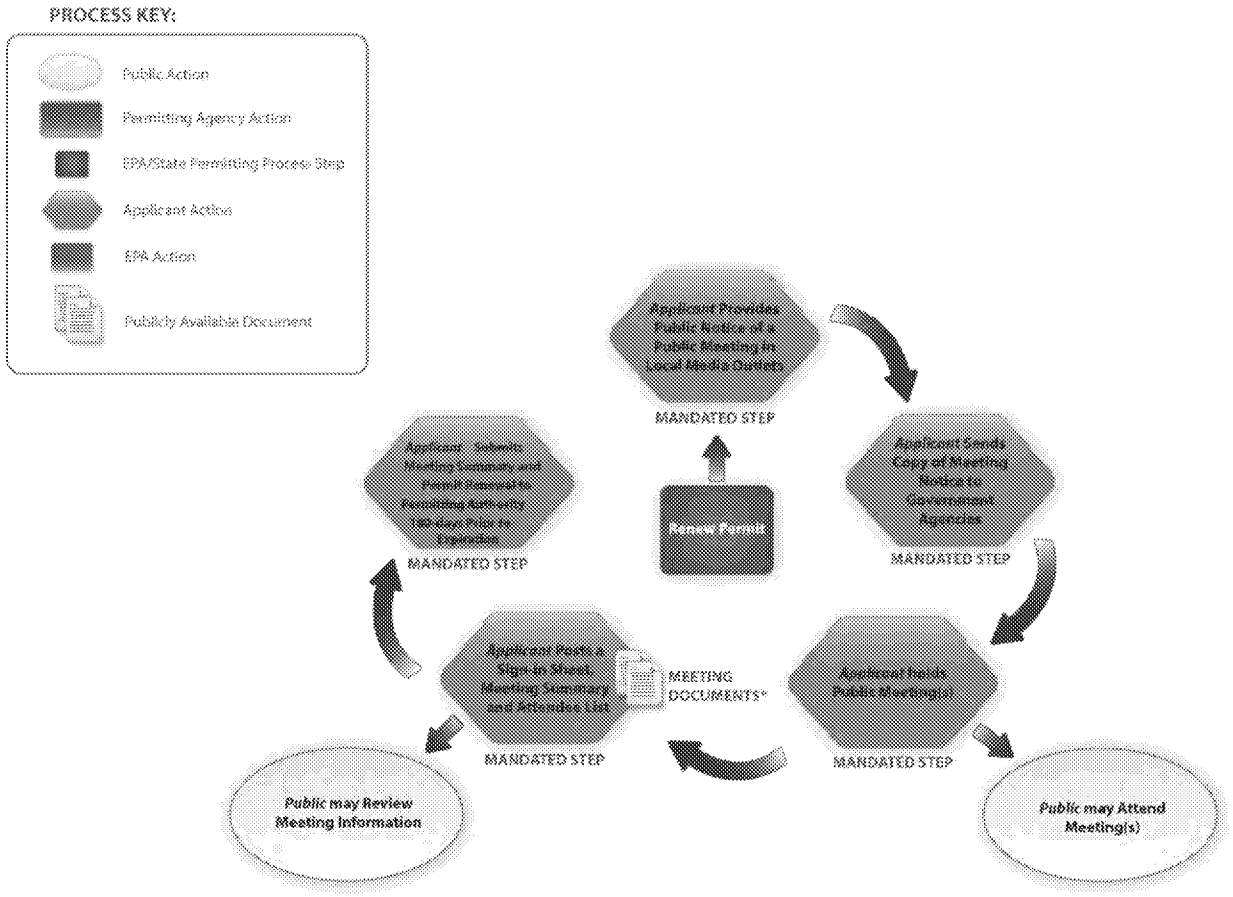


Additional Information

- Facility-initiated modifications are classified as Class 1, 2, or 3 according to the nature of the change.
- More often, facility owners or operators initiate the permit modification, rather than the permitting agency, in order to improve facility operations or make changes in response to new standards.

NOTE: Public Participation steps above are only applicable to Class 2 and Class 3 modifications. For Class 1 Modifications, the Permittee issues notice to the facility mailing list after implementation and anyone has the opportunity to request that the Director review the Class 1 Modification request.

Renew a RCRA Hazardous Waste Permit



Additional Information
Permit Renewal process is similar to issuing a new permit, requiring draft and final permit issuance steps. When an applicant announces an upcoming meeting through a public notice, it must include:

- The date, time, and location of the meeting.
- A brief description of the purpose of the meeting.
- A brief description of the facility and proposed operations, including the address or a map of the facility location.
- A statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting.
- The name, address, and telephone number of a contact person for the applicant.

*Meeting Documents include: Meeting Summary, Attendee List, Attendee Feedback, and Applicant Responses to Attendee Feedback

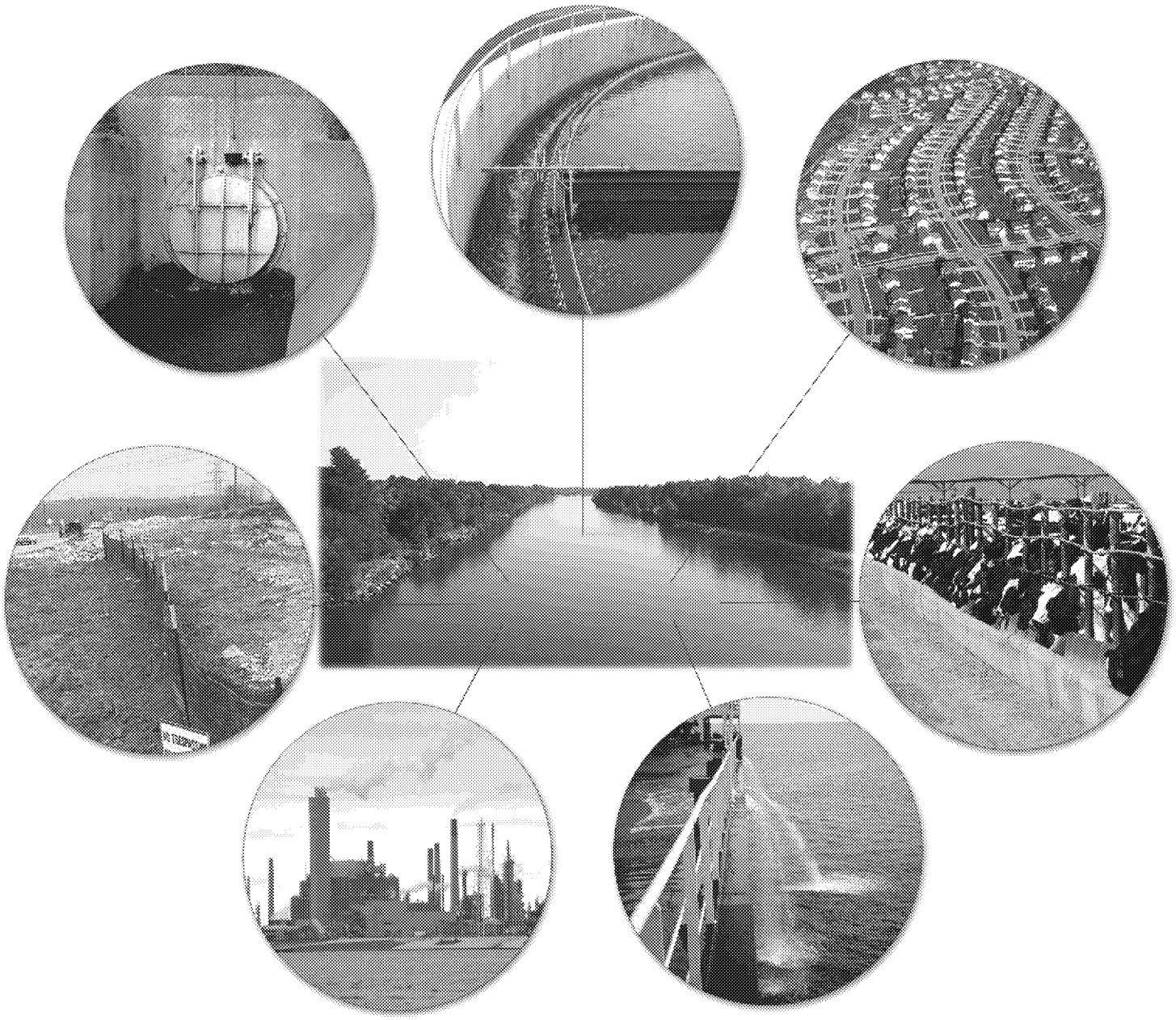
These steps only apply to renewal applications proposing changes that qualify as Class 3 permit modifications.

B.2 NPDES Permit Writers Manual, 2010. (Pages 3-1 to 3-6)

Link - NPDES Permit Writers Manual

U.S. Environmental Protection Agency

NPDES Permit Writers' Manual



U.S. Environmental Protection Agency
Office of Wastewater Management, Water Permits Division
State and Regional Branch

EPA-833-K-10-001 • September 2010

United States
Environmental Protection
Agency

Office of Water
Washington, DC

United States
Environmental Protection Agency

National Pollutant Discharge Elimination System (NPDES) Permit Writers' Manual

This guidance was developed by staff within the U.S. Environmental Protection Agency's (EPA's) Office of Wastewater Management and addresses development of wastewater discharge permits under the National Pollutant Discharge Elimination System (NPDES). NPDES permit development is governed by existing requirements of the Clean Water Act (CWA) and the EPA NPDES implementing regulations. CWA provisions and regulations contain legally binding requirements. This document does not substitute for those provisions or regulations. Recommendations in this guidance are not binding; the permitting authority may consider other approaches consistent with the CWA and EPA regulations. When EPA makes a permitting decision, it will make each decision on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account comments and information presented at that time by interested persons regarding the appropriateness of applying these recommendations to the situation. This guidance incorporates, and does not modify, existing EPA policy and guidance on developing NPDES permits. EPA may change this guidance in the future.

Water Permits Division
Office of Wastewater Management
Washington, DC 20460
(4203)
www.epa.gov/npdes

EPA-833-K-10-001
September 2010

CHAPTER 3. Overview of the NPDES Permitting Process

This chapter presents an overview of the different types of National Pollutant Discharge Elimination System (NPDES) permits, the major permit components, and the permit development and issuance process. The permit process is illustrated by flow charts. The tasks identified within the flow charts are described in detail in subsequent chapters.

3.1 Types of Permits

The two basic types of NPDES permits are individual and general permits. These permit types share the same components but are used under different circumstances and involve different permit issuance processes.

3.1.1 Individual Permits

An individual permit is a permit specifically tailored to an individual facility. Upon receiving the appropriate application form(s), the permitting authority develops a permit for that facility on the basis of information from the permit application and other sources (e.g., previous permit requirements, discharge monitoring reports, technology and water quality standards, total maximum daily loads, ambient water quality data, special studies). The permitting authority then issues the permit to the facility for a specific period not to exceed 5 years, with a requirement to reapply before the expiration date.

3.1.2 General Permits

A permitting authority develops and issues a general permit to cover multiple facilities in a specific category of discharges or of sludge use or disposal practices. General permits can be a cost-effective option for agencies because of the large number of facilities that can be covered under a single permit. According to Title 40 of the *Code of Federal Regulations* (CFR) 122.28(a)(2), general permits may be written to cover stormwater point sources or other categories of point sources having the following common elements:

- Sources that involve the same or substantially similar types of operations.
- Sources that discharge the same types of wastes or engage in the same types of sludge use or disposal.
- Sources that require the same effluent limitations or operating conditions, or standards for sewage sludge use or disposal.
- Sources that require the same monitoring where tiered conditions may be used for minor differences within a class (e.g., size or seasonal activity).
- Sources that are more appropriately regulated by a general permit.

The regulations at § 122.28(a)(1) provide for general permits to cover dischargers within an area corresponding to specific geographic or political boundaries such as the following:

- Designated planning area.
- Sewer district.
- City, county, or state boundary.

- State highway system.
- Standard metropolitan statistical area.
- Urbanized area.

The regulation also allows a general permit to cover any other appropriate division or combination of such boundaries. For example, EPA has issued general permits that cover multiple states, territories, and tribes where EPA is the permitting authority.

Where a large number of similar facilities require permits, a general permit allows the permitting authority to allocate resources in a more efficient manner and to provide more timely permit coverage than issuing an individual permit to each facility. In addition, using a general permit ensures consistent permit conditions for comparable facilities.

3.2 Major Components of a Permit

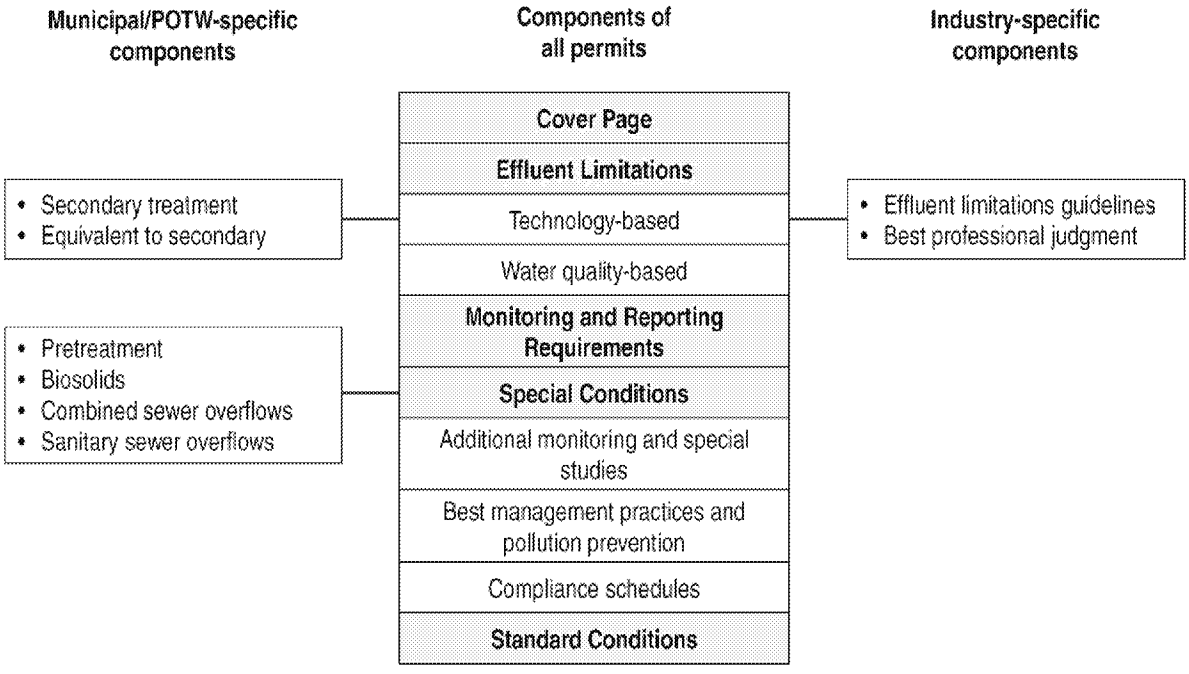
All NPDES permits consist, at a minimum, of five sections:

- **Cover Page:** Contains the name and location of the permittee, a statement authorizing the discharge, and a listing of the specific locations for which a discharge is authorized.
- **Effluent Limitations:** The primary mechanism for controlling discharges of pollutants to receiving waters. A permit writer spends the majority of his or her time, when drafting a permit, deriving appropriate effluent limitations on the basis of applicable technology and water quality standards.
- **Monitoring and Reporting Requirements:** Used to characterize wastestreams and receiving waters, evaluate wastewater treatment efficiency, and determine compliance with permit conditions.
- **Special Conditions:** Conditions developed to supplement numeric effluent limitations. Examples include additional monitoring activities, special studies, best management practices (BMPs), and compliance schedules.
- **Standard Conditions:** Pre-established conditions that apply to all NPDES permits and delineate the legal, administrative, and procedural requirements of the NPDES permit.

In addition to the components of the permit, a fact sheet or statement of basis explaining the rationale for permit conditions makes up part of the documentation that supports a draft permit. Section 11.2 of this manual includes additional discussion of permit documentation and the required elements of a fact sheet or statement of basis.

Although the major sections of a permit listed above are part of all permits, the contents of some sections vary depending on the nature of the discharge (e.g., municipal effluent, industrial process wastewater, stormwater, vessel discharges) and whether the permit is issued to an individual facility or to multiple dischargers (i.e., a general permit). Exhibit 3-1 shows the components of a permit and highlights some distinctions between the contents of NPDES permits for municipal (i.e., POTW) and industrial facilities. Permit writers should note that it is common for different permitting authorities to use different names for each section of a permit.

Exhibit 3-1 Permit components



3.3 Overview of the Development and Issuance Process for NPDES Individual Permits

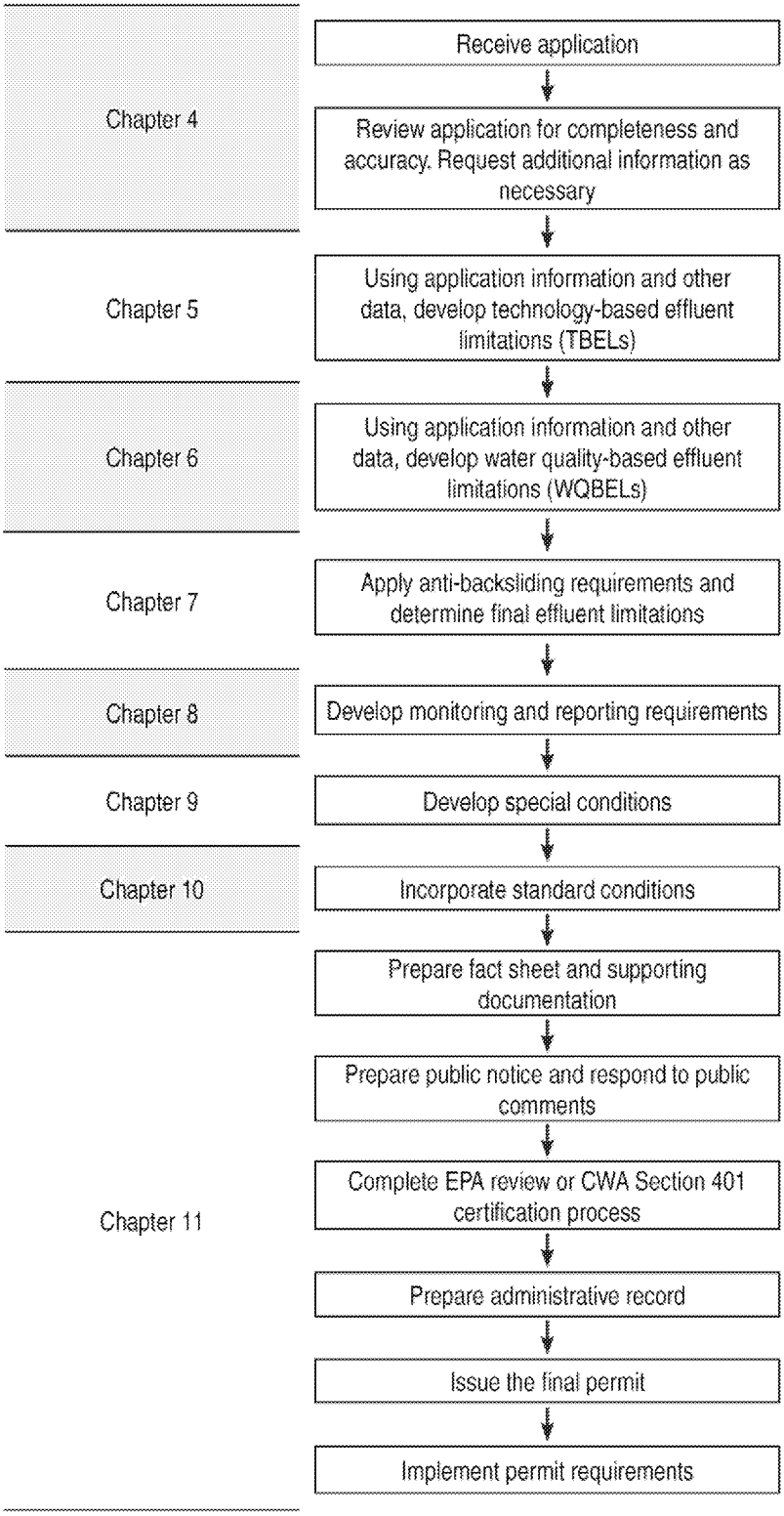
While the limitations and conditions in NPDES individual permits are unique to each permittee, the process used to develop the limitations and conditions and issue each permit generally follows a common set of steps. Exhibit 3-2 illustrates the major steps to develop and issue NPDES individual permits and also serves as an index for the subsequent chapters of this manual by identifying which chapter presents more detailed information on each step.

For individual permits, the permitting process generally begins when a facility operator submits an application. After receiving the application and making a decision to proceed with the permit, the permit writer reviews the application for completeness and accuracy. When the permit writer determines that the application is complete and has any additional information needed to draft the permit, the permit writer develops the draft permit and the justification for the permit conditions (i.e., the fact sheet or statement of basis).

The first major step in the permit development process is deriving technology-based effluent limitations (TBELs). Following that step, the permit writer derives effluent limitations that are protective of state water quality standards (i.e., water quality-based effluent limitations [WQBELs]) as needed. The permit writer then compares the TBELs with the WQBELs and, after conducting an anti-backsliding analysis if necessary, applies the final limitations in the NPDES permit. The permit writer must document the decision-making process for deriving limitations in the permit fact sheet. It is quite possible that a permit will have limitations that are technology-based for some parameters and water quality-based for others. For example, a permit could contain effluent limitations for total suspended solids (TSS) based on national effluent limitations guidelines and standards (effluent guidelines) (technology-based), limitations for ammonia based on preventing toxicity to aquatic life (water quality-based), and limitations for 5-day

biochemical oxygen demand (BOD_5) that have different bases, such as an average monthly limitation based on effluent guidelines and a maximum daily limitation based on water quality standards.

Exhibit 3-2 Major steps to develop and issue NPDES individual permits



After effluent limitation development, the permit writer develops appropriate monitoring and reporting requirements and facility-specific special conditions. The permit writer then adds standard conditions, which are the same for all permits.

The next step is to provide an opportunity for public participation in the permit process and EPA review of the permit or, in the case of an EPA-issued permit, certification under CWA section 401 by the state with jurisdiction over the receiving water that the permit will comply with its water quality standards. The permitting authority issues a public notice announcing the draft permit and inviting interested parties to submit comments. If there is significant public interest, the permitting authority can hold a public hearing. Taking into consideration the public comments, the permitting authority then produces a final permit, with careful attention to documenting the process and decisions for the administrative record, and issues the final permit to the facility. The permitting authority might decide to make significant changes to the draft permit according to public comment and then provide another opportunity for public review and comment on the revised permit. Section 11.3 of this manual discusses items to address before final permit issuance in more detail.

3.4 Overview of the Development and Issuance Process for NPDES General Permits

The process for developing and issuing NPDES general permits is similar to the process for individual permits; however, there are some differences in the sequence of events. Exhibit 3-3 illustrates the major steps to develop and issue NPDES general permits.

Exhibit 3-3 Major steps to develop and issue NPDES general permits

For general permits, the permitting authority first identifies the need for a general permit and collects data that demonstrate that a group or category of dischargers has similarities that warrant a general permit. In deciding whether to develop a general permit, permitting authorities consider whether

- A large number of facilities will be covered.
- The facilities have similar production processes or activities.
- The facilities generate similar pollutants.
- Whether uniform WQBELs (where necessary) will appropriately implement water quality standards.

The remaining steps of the permit process are the same as for individual permits. The permitting authority develops a draft permit that includes effluent limitations, monitoring conditions, special conditions, and standard conditions. The permitting authority then issues a public notice and addresses public comments, completes the EPA review or CWA section 401 certification process, develops the administrative record, and issues the final permit. The final permit will also establish the requirements for the specific information that must be submitted by a facility that wishes to be covered under the general permit.

After the final general permit has been issued, facilities that wish to be covered under the general permit typically submit a Notice of Intent (NOI) to the permitting authority. After receiving the NOI, the permitting authority can request additional information describing the facility, notify the facility that it is covered by the general permit, or require the facility to apply for an individual permit.

The following chapters in this manual describe steps in the permitting process in detail. In general, the chapters focus on the steps necessary to develop and issue an individual permit, but much of the technical discussion applies equally to general permit development.

B.3 Clean Air Act – Title V Permit Issuance Timeline

(not available online)

Permit Issuance Timeline